

EMI-Filter

- π -Filter einlötfar, einschraubbar, pressfit, SMD
- Durchführungskondensatoren einlötfar, einschraubbar, pressfit, SMD
- L-Filter, einschraubbar
- T-Filter, einschraubbar
- Filter-Arrays (Filterplatten) mit π -Filtern und C-Filtern



Telemeter Electronic

Temperaturmanagement

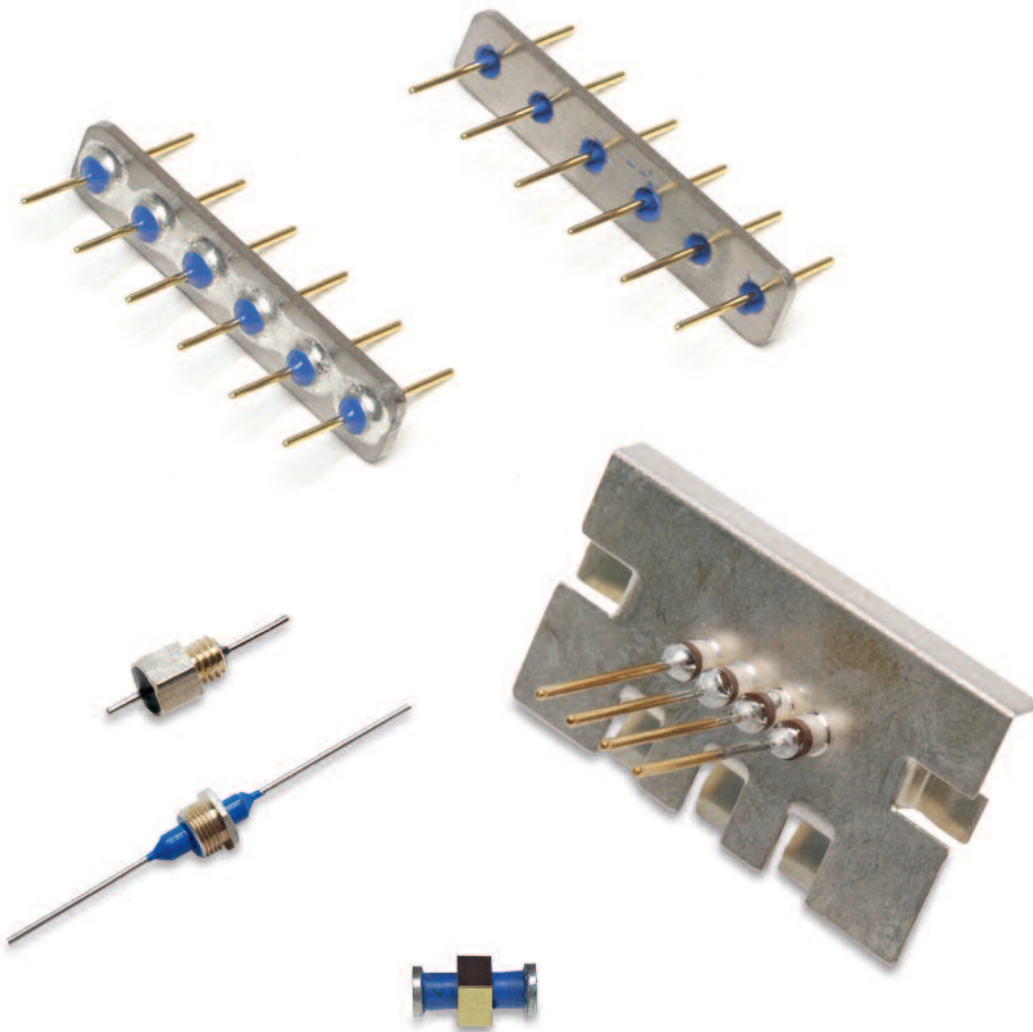
Industriekomponenten

Messtechnik

HF-/Mikrowellentechnik

Luftfahrtelektronik

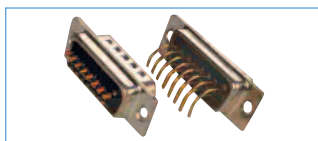
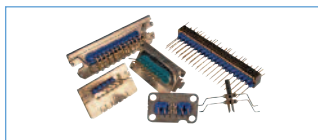
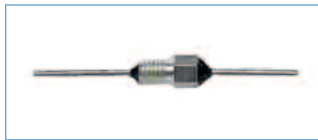
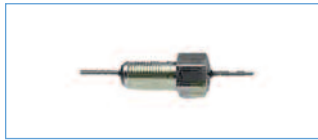
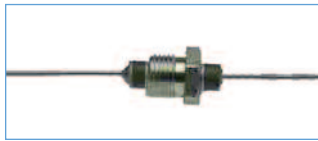
Entwicklung und Service



... wir liefern Lösungen!



T A B L E O F C O N T E N T S

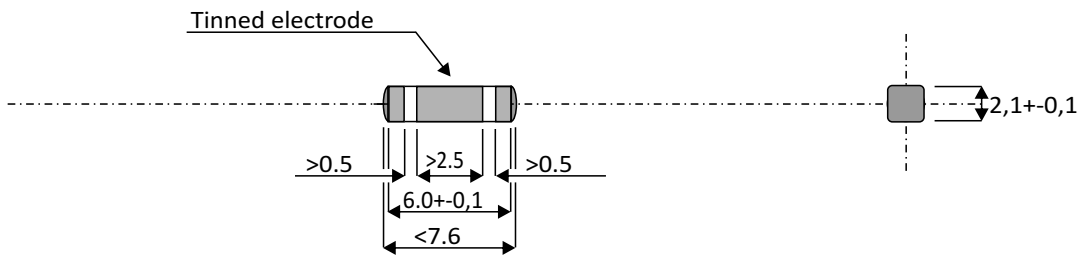


| | |
|--|---------------------------------------|
| SMD filters | 4 |
| Pi-filters solder in | 9 |
| Pi-filters solder in rivets | 12 |
| Pi-filters open bushing metric thread | 16 |
| Pifilters closed bushing metric thread | 21 |
| Pi-filters closed bushing inch thread | 27 |
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| Explosion proof filters | see separate brochure |
| Filter arrays | 48 |
| Sub D connectors | 51 |
| Cable isolators | 53 |

Surface mountable PI-filter

33825003D/04D/05D/06D/

Corresponding to F.C. type SPPK 3008



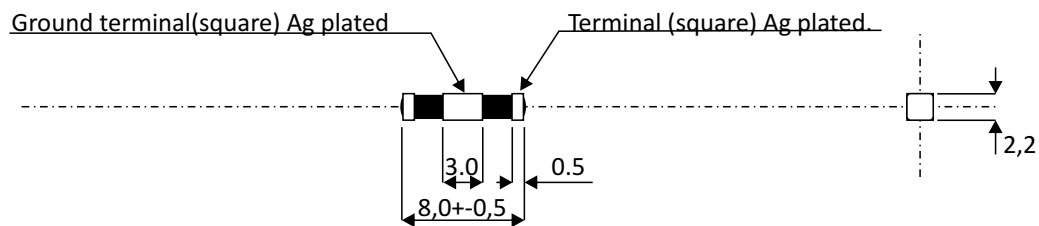
| | |
|----------------------------|------------------|
| Working voltage..... | 100Vdc. |
| Test voltage..... | 250Vdc 1min. |
| Feed-through current..... | max 5A |
| Insulation resistance..... | min 10.000 MOhm. |
| IEC category..... | 55/085/56 |
| Capacitance..... | See below |
| Inductance..... | min. 100nH |
| Marking..... | None. |

| Type numb. | Capacitance pF | Tolerance % | Imax A | Attenuation dB (typical values) 50 Ohm | | | | |
|------------|-------------------|----------------|-----------|--|------|-------|--------|------|
| | | | | 0,1MHz | 1MHz | 10MHz | 100MHz | 1GHz |
| 33825003D | 2x50pF | -20/+80% | 10 | 0 | 0 | 1 | 12 | 60 |
| 33825004D | 2x240pF | -20/+80% | 10 | 0 | 0 | 4 | 20 | 65 |
| 33825005D | 2x1000pF | GMV | 10 | 0 | 0 | 12 | 40 | 70 |
| 33825006D | 2x2000pF | GMV | 10 | 0 | 1 | 15 | 60 | 80 |

Above mentioned attenuation is measured under optimum conditions, with solid screening of the filter. Attenuation measured on an open PC-circuit surface will have a maximum of 50dB above 100MHz.

Surface mountable PI-filter

33825031D/33D/35D/37D/39D



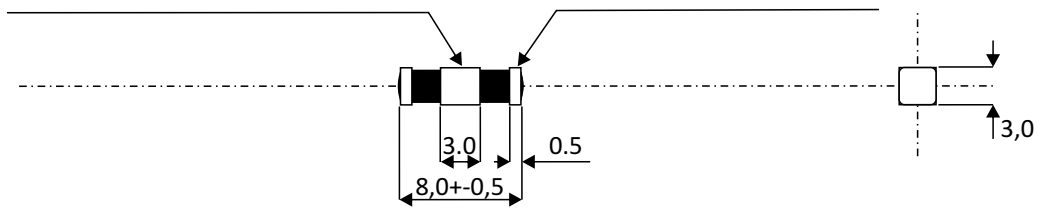
| | |
|-----------------------|----------------|
| Working voltage | 100Vdc. |
| Test voltage | 250Vdc 1min. |
| Feed-through current | See below |
| Insulation resistance | min 1000 MOhm. |
| IEC category | 55/085/56 |
| Capacitance | See below |
| Inductance | 200nH-50/+100% |
| Attenuation | See below |
| Soldering conditions | max 250 C |
| Marking | None. |

| Type numb. | Capacitance pF | Tolerance % | I _{max} A | Attenuation dB (typical values) 50 Ohm | | | | |
|------------|-------------------|----------------|-----------------------|--|------|-------|--------|------|
| | | | | 0,1MHz | 1MHz | 10MHz | 100MHz | 1GHz |
| 33825031D | 100 | +20 | 5 | 0 | 0 | 0 | 3 | 18 |
| 33825033D | 470 | +20 | 5 | 0 | 0 | 0 | 12 | 28 |
| 33825035D | 1.000 | -20/+80 | 5 | 0 | 0 | 4 | 21 | 33 |
| 33825037D | 4.700 | -20/+80 | 5 | 0 | 0 | 10 | 32 | 45 |
| 33825039D | 10.000 | -20/+80 | 5 | 0 | 3 | 20 | 40 | 50 |
| | | | | | | | | |

Above mentioned attenuation is measured on an open PC-circuit surface..

Surface mountable PI-filter

33825041D/43D/45D/47D/49D



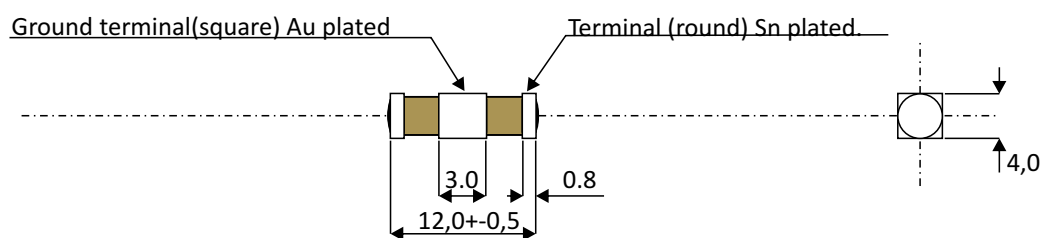
| | |
|-----------------------|----------------|
| Working voltage | 100Vdc. |
| Test voltage | 250Vdc 1min. |
| Feed-through current | See below |
| Insulation resistance | min 1000 MOhm. |
| IEC category | 55/085/56 |
| Capacitance | See below |
| Inductance | |
| Attenuation | See below |
| Soldering conditions | max 250 C |
| Marking | None. |

| Type numb. | Capacitance pF | Tolerance % | Imax A | Attenuation dB (typical values) 50 Ohm | | | | |
|------------|-------------------|----------------|-----------|--|------|-------|--------|------|
| | | | | 0,1MHz | 1MHz | 10MHz | 100MHz | 1GHz |
| 33825041D | 100 | +20 | 10 | 0 | 0 | 0 | 3 | 18 |
| 33825043D | 470 | +20 | 10 | 0 | 0 | 0 | 12 | 28 |
| 33825045D | 1.000 | -20/+80 | 10 | 0 | 0 | 4 | 21 | 33 |
| 33825047D | 4.700 | -20/+80 | 10 | 0 | 0 | 10 | 32 | 45 |
| 33825049D | 10.000 | -20/+80 | 10 | 0 | 3 | 20 | 40 | 50 |
| | | | | | | | | |

Above mentioned attenuation is measured on an open PC-circuit surface..

Surface mountable PI-filter

33825051D/52D/53D/55D/57D/59D



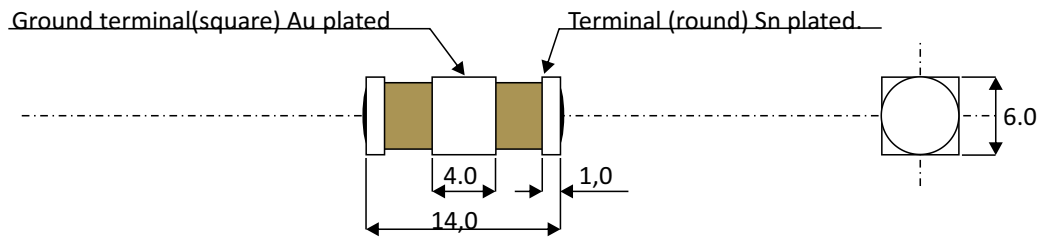
| | |
|-----------------------|----------------|
| Working voltage | 200Vdc. |
| Test voltage | 750Vdc 1min. |
| Feed-through current | See below |
| Insulation resistance | min 1000 MOhm. |
| IEC category | 55/085/56 |
| Capacitance | See below |
| Inductance | 200nH-50/+100% |
| Attenuation | See below |
| Soldering conditions | max 250 deg C |
| Marking | None. |

| Type numb. | Capacitance pF | Tolerance % | I _{max} A | Attenuation dB (typical values) 50 Ohm | | | | |
|------------|-------------------|----------------|-----------------------|--|------|-------|--------|------|
| | | | | 0,1MHz | 1MHz | 10MHz | 100MHz | 1GHz |
| 33825051D | 2x60pF | -20/+50% | 10 | 0 | 0 | 1 | 12 | 60 |
| 33825052D | 2x200pF | -20/+50% | 10 | 0 | 0 | 4 | 20 | 65 |
| 33825053D | 2x800pF | -20/+80% | 10 | 0 | 0 | 12 | 40 | 70 |
| 33825055D | 2x1500pF | GMV | 10 | 0 | 1 | 15 | 60 | 80 |
| 33825057D | 2x3000pF | GMV | 10 | 0 | 2 | 25 | 75 | 80 |
| 33825059D | 2x6000pF | GMV | 10 | 0 | 2 | 30 | 75 | 80 |

Above mentioned attenuation is measured under optimum conditions, with solid screening of the filter. Attenuation measured on an open PC-circuit surface will have a maximum of 50dB above 100MHz.

Surface mountable PI-filter

33825071D/72D/73D/75D/77D/79D



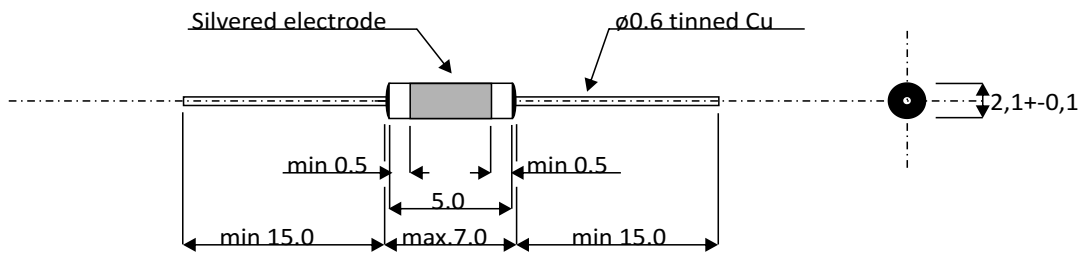
| | |
|-----------------------|-----------------|
| Working voltage | 200Vdc. |
| Test voltage | 750Vdc 1min. |
| Feed-through current | See below |
| Insulation resistance | min 10000 MOhm. |
| IEC category | 55/085/56 |
| Capacitance | See below |
| Inductance | 500nH-50/+100% |
| Attenuation | See below |
| Soldering conditions | max 250 deg. C |
| Marking | None. |

| Type numb. | Capacitance pF | Tolerance % | I _{max} A | Attenuation dB (typical values) 50 Ohm | | | | |
|------------|-------------------|----------------|-----------------------|--|------|-------|--------|------|
| | | | | 0,1MHz | 1MHz | 10MHz | 100MHz | 1GHz |
| 33825071D | 2x60pF | -20/+50% | 25 | 0 | 0 | 1 | 12 | 60 |
| 33825072D | 2x200pF | -20/+50% | 25 | 0 | 0 | 4 | 20 | 65 |
| 33825073D | 2x800pF | -20/+80% | 25 | 0 | 0 | 12 | 40 | 70 |
| 33825075D | 2x1500pF | GMV | 25 | 0 | 1 | 15 | 60 | 80 |
| 33825077D | 2x3000pF | GMV | 25 | 0 | 2 | 25 | 75 | 80 |
| 33825079D | 2x6000pF | GMV | 25 | 0 | 2 | 30 | 75 | 80 |

Above mentioned attenuation is measured under optimum conditions, with solid screening of the filter. Attenuation measured on an open PC-circuit surface will have a maximum of 50dB above 100MHz.

PI-filter

3382100D/101D/002D/102D/103D



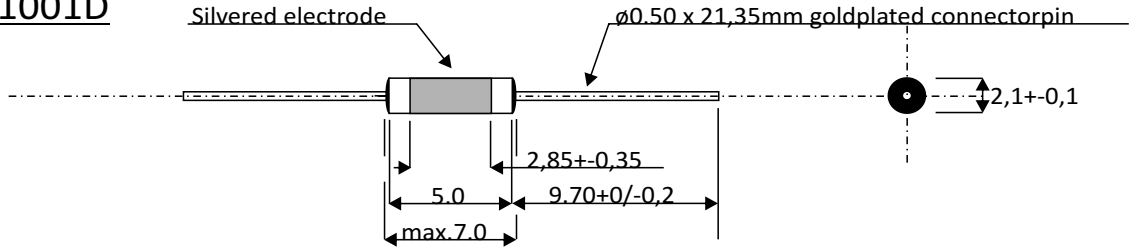
| | |
|-----------------------|-----------------|
| Working voltage | 100Vdc. |
| Test voltage | 250Vdc 1min. |
| Feed-through current | max 5A |
| Insulation resistance | min 10000 MOhm. |
| IEC category | 55/085/56 |
| Capacitance | See below |
| Inductance | min. 100nH |
| Attenuation | See below |
| Soldering conditions | max 230 deg C |
| Marking | None. |

| Type number | CAP pF | TOL % or GMV | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|---------------------------|-----------|------------|----------|
| | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33821100D | 2x60 | -20/+80 | - | 1 | 12 | 60 |
| 33821101D | 2x200 | -20/+80 | - | 4 | 20 | 65 |
| 33821002D | 2x800 | -0/+80 | - | 12 | 40 | 70 |
| 33821102D | 2x1500 | GMV | 1 | 15 | 60 | 80 |
| 33821103D | 2x3000 | GMV | 2 | 25 | 75 | 80 |

Other capacitances or wires are available upon request.

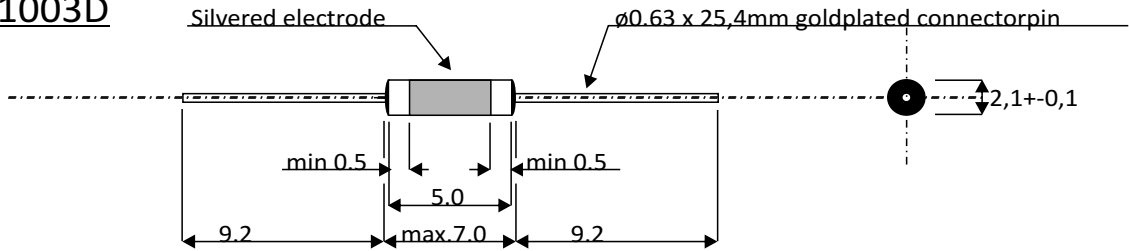
Special versions in same style

32821001D



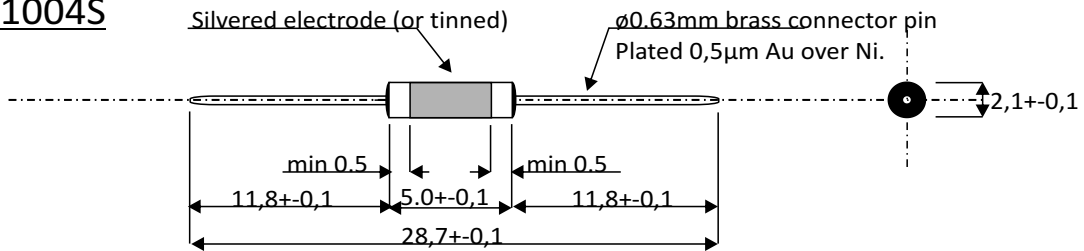
| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 32821001D | 2x400 | -0/+100 | 100 | 5 | - | 6 | 38 | 75 |

33821003D



| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33821003D | 2x1000 | -GMV | 100 | 5 | 1 | 10 | 50 | 80 |

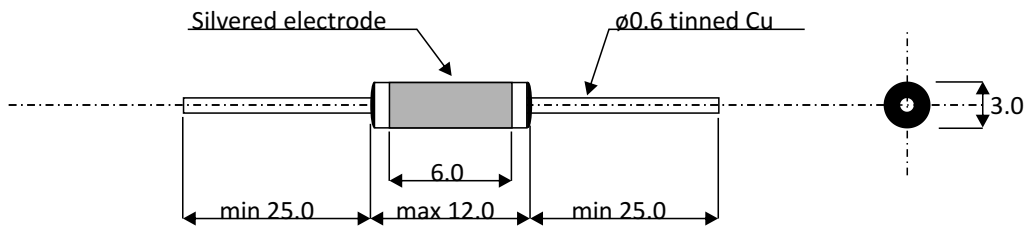
33821004S



| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33821004S | 2x1000 | -GMV | 100 | 5 | 1 | 10 | 50 | 80 |

PI-filter

3382104D/105D/106D/001D/107D/007D



Working voltage

250Vdc.

Test voltage

750Vdc 1min.

Feed-through current

max 5A

Insulation resistance

min 10000 MOhm.

IEC category

55/085/56

Capacitance

See below

Inductance

min. 1000nH-50/+100%

Attenuation

See below

Soldering conditions

230 deg C

Marking

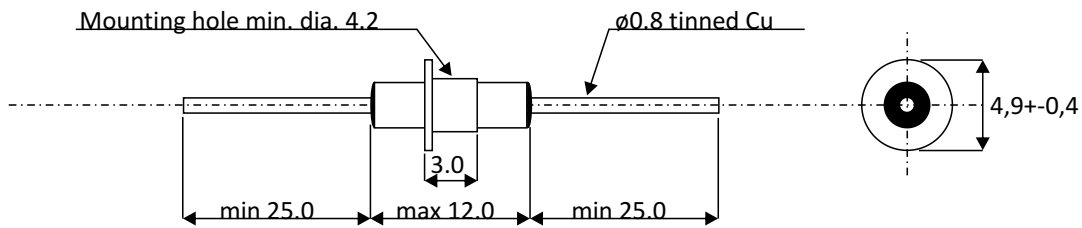
None.

| Type number | CAP pF | TOL % or GMV | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|---------------------------|-----------|------------|----------|
| | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33821104D | 2x60 | -20/+80 | - | 1 | 12 | 60 |
| 33821105D | 2x200 | -20/+80 | - | 4 | 20 | 65 |
| 33821006D | 2x800 | -0/+80 | - | 12 | 40 | 70 |
| 33821001D | 2x1500 | GMV | 1 | 15 | 60 | 80 |
| 33821107D | 2x3000 | GMV | 2 | 25 | 75 | 80 |
| 33821007D | 2x6000 | GMV | 2 | 30 | 75 | 80 |

Other capacitances or wires are available upon request.

PI-filter

33822101D/102D/103D/104D/105D/106D



Working voltage

250Vdc.

Test voltage

750Vdc 1min.

Feed-through current

max 5A

Insulation resistance

min 10000 MOhm.

IEC category

55/085/56

Capacitance

See below

Inductance

min. 1000nH-50/+100%

Attenuation

See below

Soldering conditions

max 250 deg C

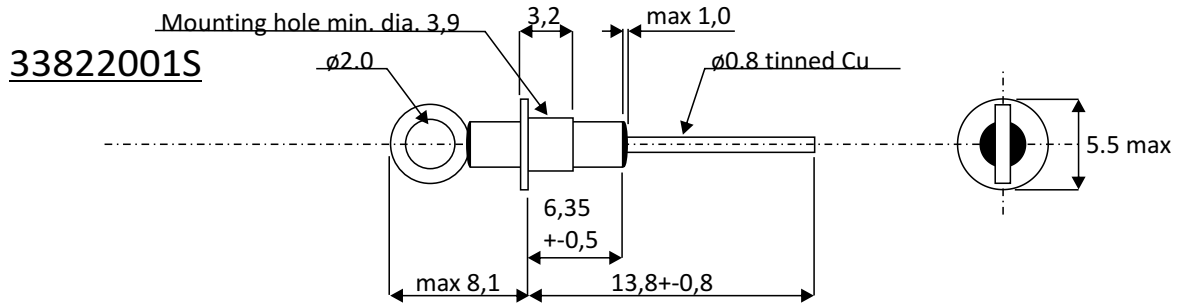
Marking

None.

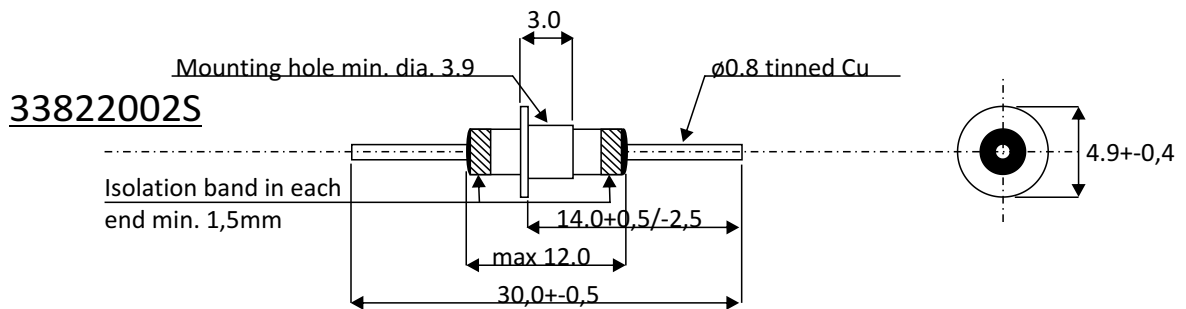
| Type number | CAP pF | TOL % or GMV | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|---------------------------|-----------|------------|----------|
| | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33822101D | 2x60 | -20/+80 | - | 1 | 12 | 60 |
| 33822102D | 2x200 | -20/+80 | - | 4 | 20 | 65 |
| 33822103D | 2x800 | -0/+80 | - | 12 | 40 | 70 |
| 33822104D | 2x1500 | GMV | 1 | 15 | 60 | 80 |
| 33822105D | 2x3000 | GMV | 2 | 25 | 75 | 80 |
| 33822106D | 2x6000 | GMV | 2 | 30 | 75 | 80 |

Other capacitances or wires are available upon request.

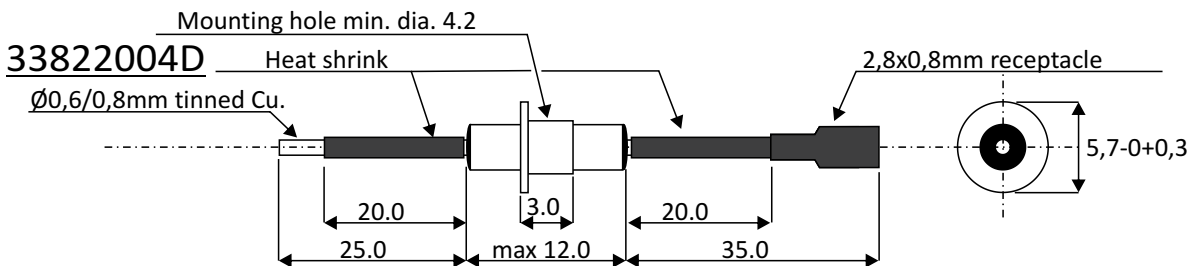
Special versions in same style



| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33822001S | 2x1500 | -0/+100 | 250 | 10 | 2 | 12 | 65 | 75 |



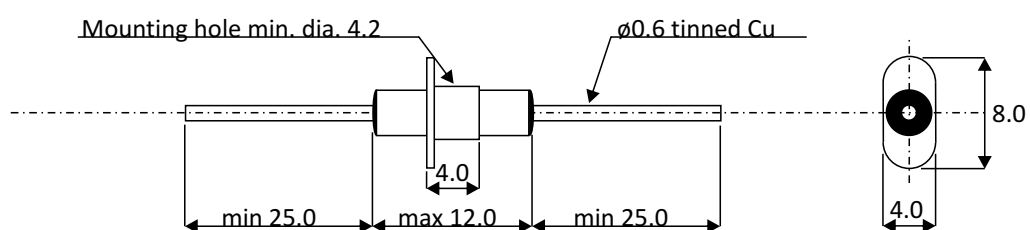
| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33822002S | 2x1500 | -0/+100 | 250 | 10 | 2 | 12 | 65 | 75 |



| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33822004D | 2x750 | GMV | 250 | 10 | - | 12 | 40 | 70 |

PI-filter

33822107D/108D/109D/002D/110D/111D



Working voltage

250Vdc.

Test voltage

750Vdc 1min.

Feed-through current

max 5A

Insulation resistance

min 10000 MOhm.

IEC category

55/085/56

Capacitance

See below

Inductance

min. 1000nH-50/+100%

Attenuation

See below

Soldering conditions

max 250 deg C

Marking

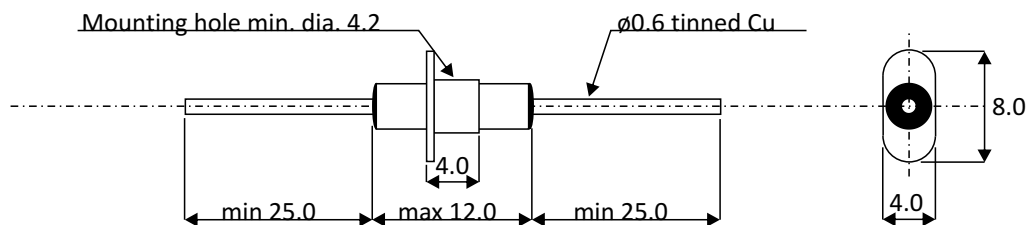
None.

| Type number | CAP pF | TOL % or GMV | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|---------------------------|-----------|------------|----------|
| | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33822107D | 2x60 | -20/+80 | - | 1 | 12 | 60 |
| 33822108D | 2x200 | -20/+80 | - | 4 | 20 | 65 |
| 33822109D | 2x800 | -0/+80 | - | 12 | 40 | 70 |
| 33822002D | 2x1500 | GMV | 1 | 15 | 60 | 80 |
| 33822110D | 2x3000 | GMV | 2 | 25 | 75 | 80 |
| 33822111D | 2x6000 | GMV | 2 | 30 | 75 | 80 |

Other capacitances or wires are available upon request.

Special versions in same style

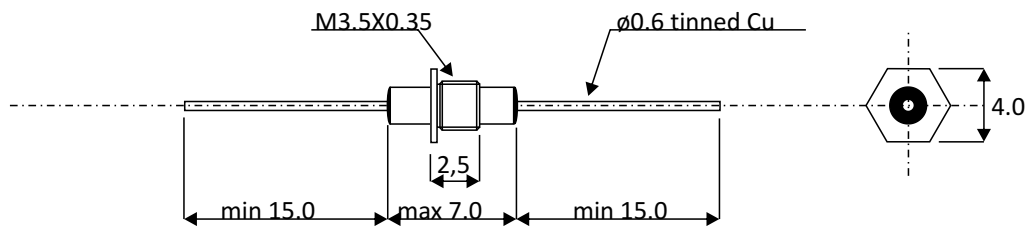
31222005S



Inductance: 50nH-50/+50%

| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 31222005S | 2x15 | -20/+80 | 250 | 5 | - | - | 3 | 16 |

33823101D/102D/103D/104D/105D



Working voltage

100Vdc.

Test voltage

250Vdc 1min.

Feed-through current

max 5A

Insulation resistance

min 10000 MOhm.

IEC category

55/085/56

Capacitance

See below

Inductance

200nH-50/+200%

Soldering conditions

max 250 deg C

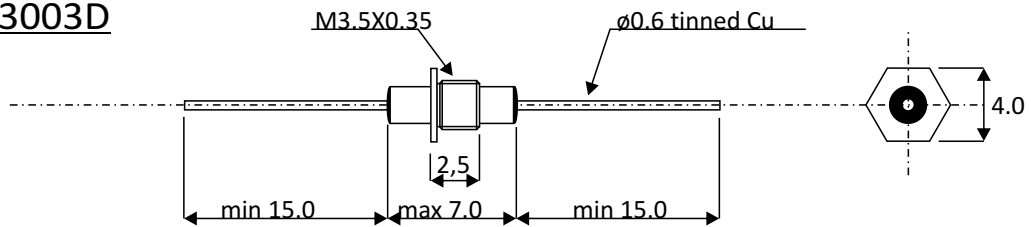
Marking

None.

| Type number | CAP pF | TOL % or GMV | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|---------------------------|-----------|------------|----------|
| | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33823101D | 2x60 | -20/+80 | - | 1 | 12 | 60 |
| 33823102D | 2x200 | -20/+80 | - | 4 | 20 | 65 |
| 33823103D | 2x800 | -0/+80 | - | 12 | 40 | 70 |
| 33823104D | 2x1500 | GMV | 1 | 15 | 60 | 80 |
| 33823105D | 2x3000 | GMV | 2 | 25 | 75 | 80 |

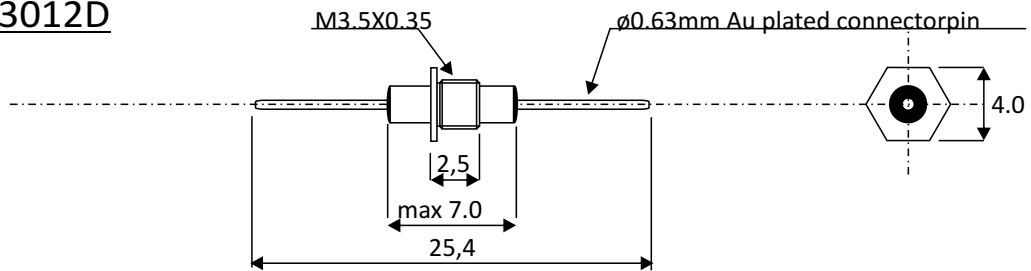
Special versions in same style

33823003D



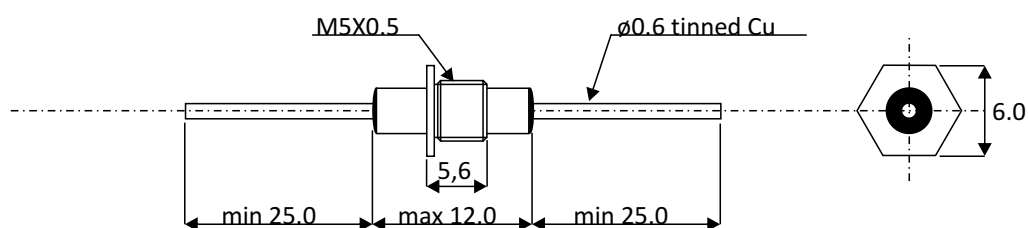
| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33823003D | 2x1000 | -0/+100 | 100 | 5 | 1 | 12 | 50 | 80 |

33823012D



| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33823012D | 2x1000 | -0/+100 | 100 | 5 | 1 | 12 | 50 | 80 |

33823106D/107D/108D/002D/109D/110D



Working voltage

250Vdc.

Test voltage

750Vdc 1min.

Feed-through current

max 5A

Insulation resistance

min 10000 MOhm.

IEC category

55/085/56

Capacitance

See below

Inductance

1000nH-50/+100%

Soldering conditions

max 250 deg C

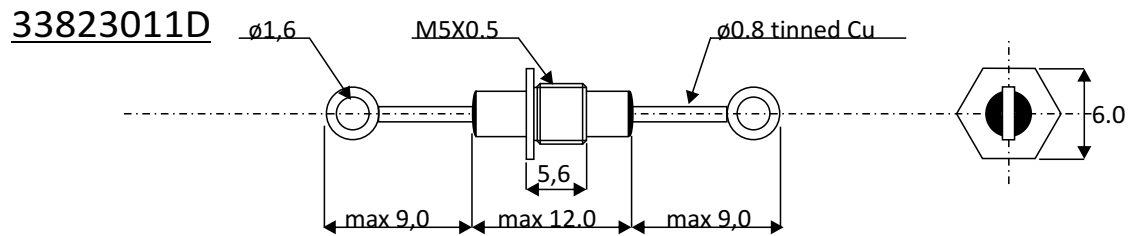
Marking

None.

| Type number | CAP pF | TOL % or GMV | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|---------------------------|-----------|------------|----------|
| | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33823106D | 2x60 | -20/+80 | - | 1 | 12 | 60 |
| 33823107D | 2x200 | -20/+80 | - | 4 | 20 | 65 |
| 33823108D | 2x800 | -0/+80 | - | 12 | 40 | 70 |
| 33823002D | 2x1500 | GMV | 1 | 15 | 60 | 80 |
| 33823109D | 2x3000 | GMV | 2 | 25 | 75 | 80 |
| 33823110D | 2x6000 | GMV | 2 | 30 | 75 | 80 |

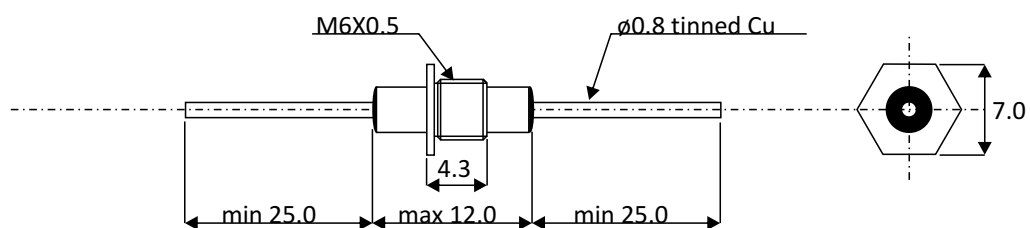
Other capacitances or wires are available upon request.

Special versions in same style



| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33823011D | 2x1500 | GMV | 250 | 10 | 1 | 15 | 60 | 80 |

33823111D/112D/113D/114D/115D/116D



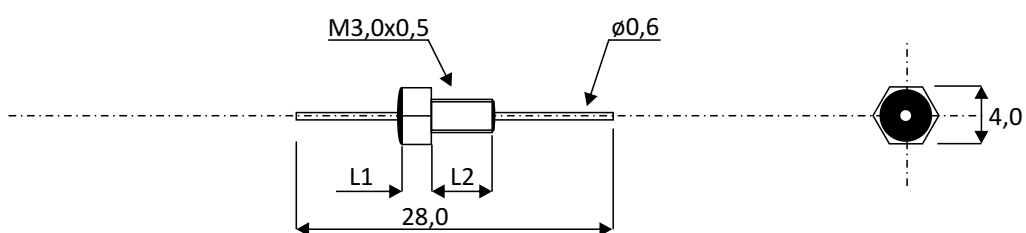
| | |
|-----------------------|-----------------|
| Working voltage | 250Vdc. |
| Test voltage | 750Vdc 1min. |
| Feed-through current | max 10A |
| Insulation resistance | min 10000 MOhm. |
| IEC category | 55/085/56 |
| Capacitance | See below |
| Inductance | 1000nH-50/+100% |
| Soldering conditions | maxc 250 deg C |
| Marking | None. |

| Type number | CAP pF | TOL % or GMV | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|---------------------------|-----------|------------|----------|
| | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33823111D | 2x60 | -20/+80 | - | 1 | 12 | 60 |
| 33823112D | 2x200 | -20/+80 | - | 4 | 20 | 65 |
| 33823113D | 2x800 | -0/+80 | - | 12 | 40 | 70 |
| 33823114D | 2x1500 | GMV | 1 | 15 | 60 | 80 |
| 33823115D | 2x3000 | GMV | 2 | 25 | 75 | 80 |
| 33823116D | 2x6000 | GMV | 2 | 30 | 75 | 80 |

Other capacitances or wires are available upon request.

33824140D/141D/142D/143D/144D

Bushing mount sealed feed through capacitor M3,0x0,5.



Working voltage

Test voltage

Feed-through current

Insulation resistance

IEC category

Capacitance

Inductance

Marking

Soldering on leads

See below.

2,5 x working voltage 1min.

See below

min 10000 MOhm.

55/125/56

See below

200uH-0/+100%

None

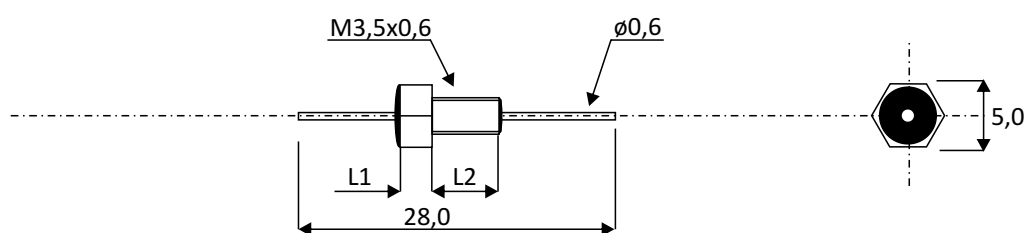
Max 270 deg C.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824140D | 3,5 | 4,5 | 2x60 | -20/+80 | 100 | 5 | - | 1 | 12 | 60 |
| 33824141D | 3,5 | 4,5 | 2x200 | -20/+80 | 100 | 5 | - | 4 | 20 | 65 |
| 33824142D | 3,5 | 4,5 | 2x800 | -20/+80 | 100 | 5 | - | 12 | 40 | 70 |
| 33824143D | 3,5 | 4,5 | 2x1500 | GMV | 100 | 5 | 1 | 15 | 60 | 80 |
| 33824144D | 3,5 | 4,5 | 2x3000 | GMV | 100 | 5 | 2 | 25 | 75 | 80 |

Other capacitances or wires are available upon request.

33824150D/151D/152D/153D/154D

Bushing mount sealed feed through capacitor M3,5x0,6.



Working voltage

See below.

Test voltage

2,5 x working voltage 1min.

Feed-through current

See below

Insulation resistance

min 10000 MOhm.

IEC category

55/125/56

Capacitance

See below

Inductance

200uH-0/+100%

Marking

None

Soldering on leads

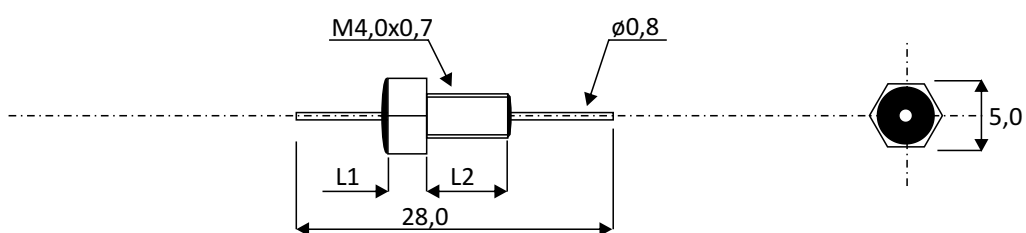
Max 270 deg C.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824150D | 3,5 | 4,5 | 2x60 | -20/+80 | 100 | 5 | - | 1 | 12 | 60 |
| 33824151D | 3,5 | 4,5 | 2x200 | -20/+80 | 100 | 5 | - | 4 | 20 | 65 |
| 33824152D | 3,5 | 4,5 | 2x800 | -20/+80 | 100 | 5 | - | 12 | 40 | 70 |
| 33824153D | 3,5 | 4,5 | 2x1500 | GMV | 100 | 5 | 1 | 15 | 60 | 80 |
| 33824154D | 3,5 | 4,5 | 2x3000 | GMV | 100 | 5 | 2 | 25 | 75 | 80 |

Other capacitances or wires are available upon request.

33824160D/161D/162D/163D/164D/165D

Bushing mount sealed Pi-filter M4,0x0,7.



Working voltage

See below.

Test voltage

2,5 x working voltage 1min.

Feed-through current

See below

Insulation resistance

min 10000 MOhm.

IEC category

55/125/56

Capacitance

See below

Inductance

400uH-0/+100%

Marking

None

Soldering on leads

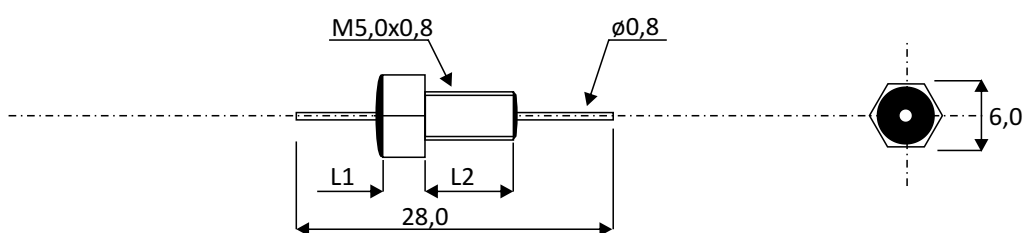
Max 270 deg C.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824160D | 3,5 | 4,5 | 2x60 | -20/+80 | 100 | 10 | - | 1 | 12 | 60 |
| 33824161D | 3,5 | 4,5 | 2x200 | -20/+80 | 100 | 10 | - | 4 | 20 | 65 |
| 33824162D | 3,5 | 4,5 | 2x800 | -20/+80 | 100 | 10 | - | 12 | 40 | 70 |
| 33824163D | 3,5 | 4,5 | 2x1500 | GMV | 100 | 10 | 1 | 15 | 60 | 80 |
| 33824164D | 3,5 | 4,5 | 2x3000 | GMV | 100 | 10 | 2 | 25 | 75 | 80 |
| 33824165D | 3,5 | 4,5 | 2x6000 | GMV | 100 | 10 | 2- | 30 | 75 | 80 |

Other capacitances or wires are available upon request.

33824170D/171D/172D/173D/174D/175D

Bushing mount sealed Pi-filter M5,0x0,8.



Working voltage

See below.

Test voltage

2,5 x working voltage 1min.

Feed-through current

See below

Insulation resistance

min 10000 MOhm.

IEC category

55/125/56

Capacitance

See below

Inductance

500uH-0/+100%

Marking

None

Soldering on leads

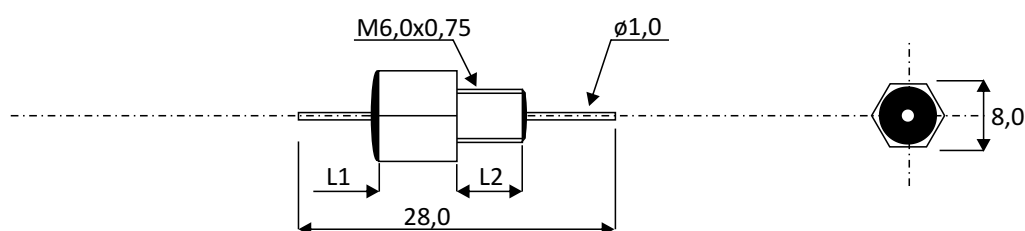
Max 270 deg C.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824170D | 4,0 | 8,0 | 2x60 | -20/+80 | 200 | 10 | - | 1 | 12 | 60 |
| 33824171D | 4,0 | 8,0 | 2x200 | -20/+80 | 200 | 10 | - | 4 | 20 | 65 |
| 33824172D | 4,0 | 8,0 | 2x800 | -20/+80 | 200 | 10 | - | 12 | 40 | 70 |
| 33824173D | 4,0 | 8,0 | 2x1500 | GMV | 200 | 10 | 1 | 15 | 60 | 80 |
| 33824174D | 4,0 | 8,0 | 2x3000 | GMV | 200 | 10 | 2 | 25 | 75 | 80 |
| 33824175D | 4,0 | 8,0 | 2x6000 | GMV | 200 | 10 | 2- | 30 | 75 | 80 |

Other capacitances or wires are available upon request.

33824180D/181D/182D/183D/184D/185D

Bushing mount sealed Pi-filter M6,0x0,75



Working voltage

See below.

Test voltage

2,5 x working voltage 1min.

Feed-through current

See below

Insulation resistance

min 10000 MOhm.

IEC category

55/125/56

Capacitance

See below

Inductance

500uH-0/+100%

Marking

None

Soldering on leads

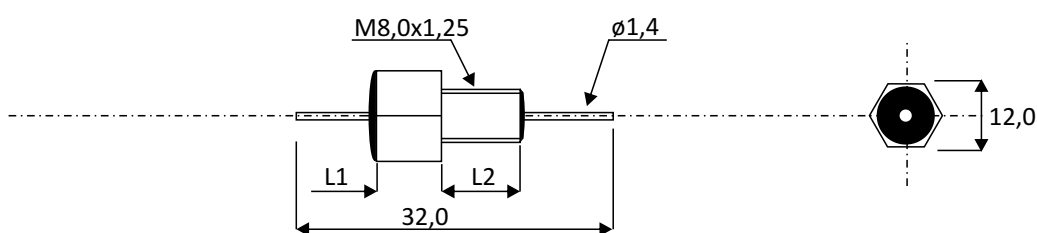
Max 270 deg C.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824180D | 7,4 | 5,1 | 2x60 | -20/+80 | 200 | 15 | - | 1 | 12 | 60 |
| 33824181D | 7,4 | 5,1 | 2x200 | -20/+80 | 200 | 15 | - | 4 | 20 | 65 |
| 33824182D | 7,4 | 5,1 | 2x800 | -20/+80 | 200 | 15 | - | 12 | 40 | 70 |
| 33824183D | 7,4 | 5,1 | 2x1500 | GMV | 200 | 15 | 1 | 15 | 60 | 80 |
| 33824184D | 7,4 | 5,1 | 2x3000 | GMV | 200 | 15 | 2 | 25 | 75 | 80 |
| 33824185D | 7,4 | 5,1 | 2x6000 | GMV | 200 | 15 | 2- | 30 | 75 | 80 |

Other capacitances or wires are available upon request.

33824190D/191D/192D/193D/194D/195D

Bushing mount sealed Pi-filter M8,0x1,25



Working voltage

See below.

Test voltage

2,5 x working voltage 1min.

Feed-through current

See below

Insulation resistance

min 10000 MOhm.

IEC category

55/125/56

Capacitance

See below

Inductance

500uH-0/+100%

Marking

None

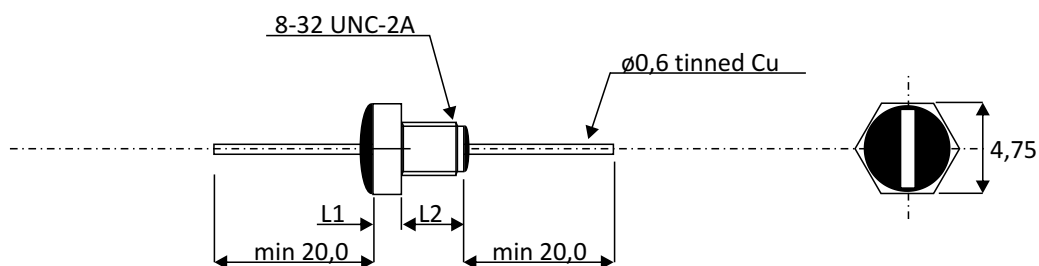
Soldering on leads

Max 270 deg C.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824190D | 8,0 | 10,0 | 2x60 | -20/+80 | 500 | 25 | - | 1 | 12 | 60 |
| 33824191D | 8,0 | 10,0 | 2x200 | -20/+80 | 500 | 25 | - | 4 | 20 | 65 |
| 33824192D | 8,0 | 10,0 | 2x800 | -20/+80 | 500 | 25 | - | 12 | 40 | 70 |
| 33824193D | 8,0 | 10,0 | 2x1500 | GMV | 500 | 25 | 1 | 15 | 60 | 80 |
| 33824194D | 8,0 | 10,0 | 2x3000 | GMV | 500 | 25 | 2 | 25 | 75 | 80 |
| 33824195D | 8,0 | 10,0 | 2x6000 | GMV | 500 | 25 | 2- | 30 | 75 | 80 |

Other capacitances or wires are available upon request.

33824200D/201D/202D/203D/204D

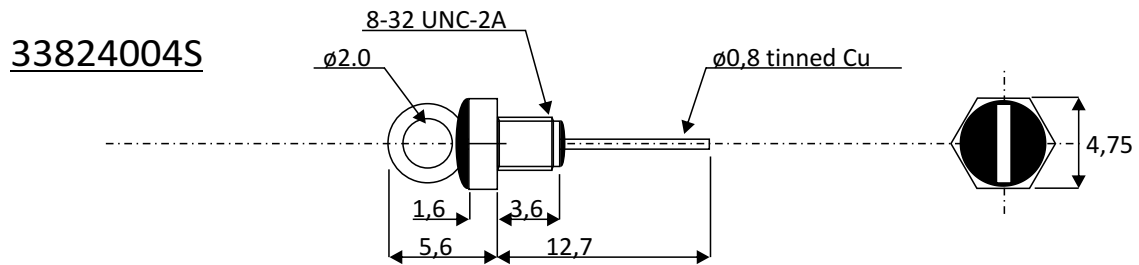


| | |
|----------------------------|-----------------|
| Working voltage..... | 100Vdc. |
| Test voltage..... | 250Vdc 1min. |
| Feed-through current..... | See below |
| Insulation resistance..... | min 10000 MOhm. |
| IEC category..... | 55/125/56 |
| Capacitance..... | See below |
| Inductance..... | min. 100nH |
| Marking..... | None. |

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824200D | 1,6 | 3,6 | 2x60 | -20/+80 | 100 | 5 | - | 1 | 12 | 60 |
| 33824201D | 1,6 | 3,6 | 2x200 | -20/+80 | 100 | 5 | - | 4 | 20 | 65 |
| 33824202D | 1,6 | 3,6 | 2x800 | -20/+80 | 100 | 5 | - | 12 | 40 | 70 |
| 33824203D | 1,6 | 3,6 | 2x1500 | GMV | 100 | 5 | 1 | 15 | 60 | 80 |
| 33824204D | 1,6 | 3,6 | 2x3000 | GMV | 100 | 5 | 2 | 25 | 75 | 80 |

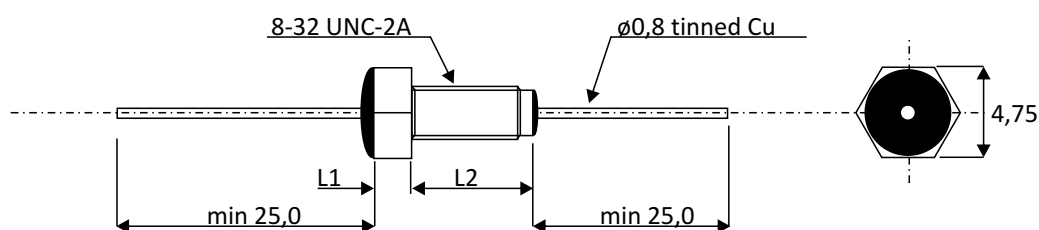
Other capacitances or wires are available upon request.

Special versions in same style



| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824004S | 2x750 | GMV | 100 | 10 | 2 | 10 | 50 | 80 |

33824210D/211D/212D/213D/214D/215D



Working voltage

100Vdc.

Test voltage

250Vdc 1min.

Feed-through current

See below.

Insulation resistance

min 10000 MOhm.

IEC category

55/125/56

Capacitance

See below

Inductance

min. 200nH

Marking

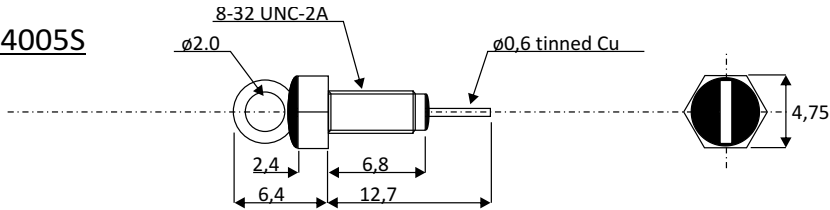
None.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824210D | 2,4 | 6,8 | 2x60 | -20/+80 | 100 | 10 | - | 1 | 12 | 60 |
| 33824211D | 2,4 | 6,8 | 2x200 | -20/+80 | 100 | 10 | - | 4 | 20 | 65 |
| 33824212D | 2,4 | 6,8 | 2x800 | -20/+80 | 100 | 10 | - | 12 | 40 | 70 |
| 33824213D | 2,4 | 6,8 | 2x1500 | GMV | 100 | 10 | 1 | 15 | 60 | 80 |
| 33824214D | 2,4 | 6,8 | 2x3000 | GMV | 100 | 10 | 2 | 25 | 75 | 80 |
| 33824215D | 2,4 | 6,8 | 2x6000 | GMV | 100 | 10 | 2- | 30 | 75 | 80 |

Other capacitances or wires are available upon request.

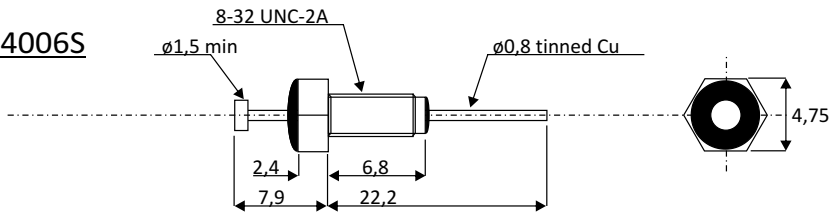
Special versions in same style

33824005S



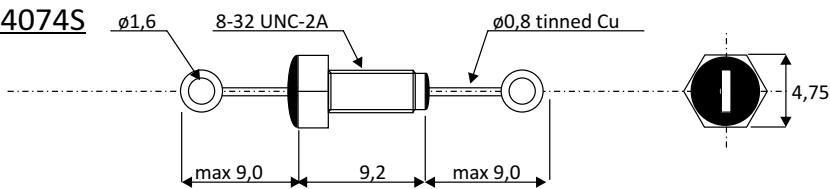
| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824005S | 2x1000 | GMV | 100 | 10 | 2 | 12 | 50 | 80 |

33824006S



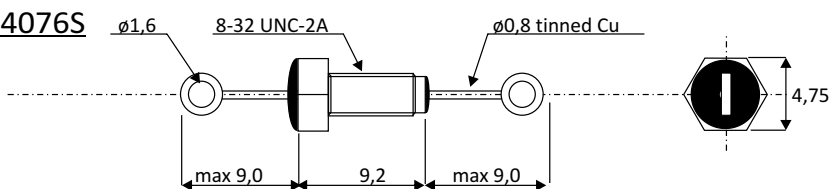
| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824006S | 2x1000 | GMV | 100 | 10 | 2 | 12 | 50 | 80 |

33824074S



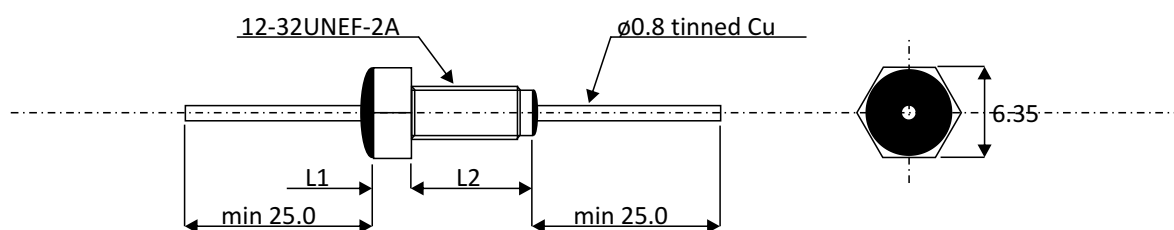
| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824074S | 2x3000 | GMV | 100 | 10 | 2 | 25 | 75 | 80 |

33824076S



| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824076S | 2x6000 | GMV | 100 | 10 | 2 | 30 | 75 | 80 |

33824220D/221D/222D/223D/224D/225D



Working voltage

250Vdc.

Test voltage

750Vdc 1min.

Feed-through current

See below

Insulation resistance

min 10000 MOhm.

IEC category

55/125/56

Capacitance

See below

Inductance

1000nH-50/+100%

Soldering conditions

max 250deg C

Marking

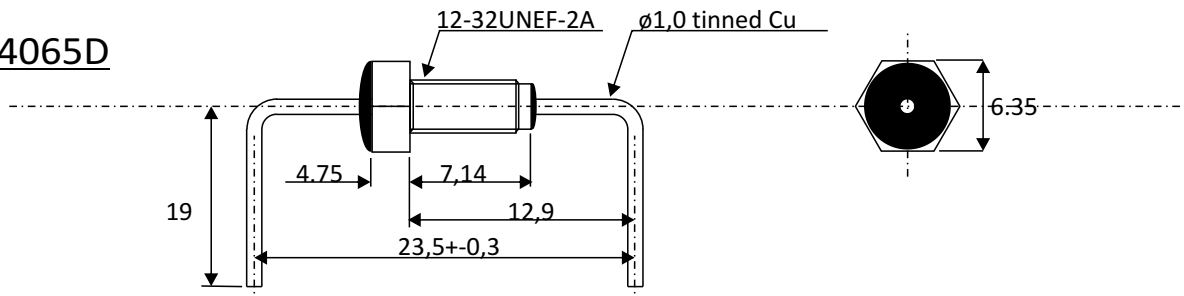
None.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824220D | 4,8 | 7,1 | 2x60 | -20/+80 | 100 | 10 | - | 1 | 12 | 60 |
| 33824221D | 4,8 | 7,1 | 2x200 | -20/+80 | 100 | 10 | - | 4 | 20 | 65 |
| 33824222D | 4,8 | 7,1 | 2x800 | -20/+80 | 100 | 10 | - | 12 | 40 | 70 |
| 33824223D | 4,8 | 7,1 | 2x1500 | GMV | 100 | 10 | 1 | 15 | 60 | 80 |
| 33824224D | 4,8 | 7,1 | 2x3000 | GMV | 100 | 10 | 2 | 25 | 75 | 80 |
| 33824225D | 4,8 | 7,1 | 2x6000 | GMV | 100 | 10 | 2- | 30 | 75 | 80 |

Other capacitances or wires are available upon request.

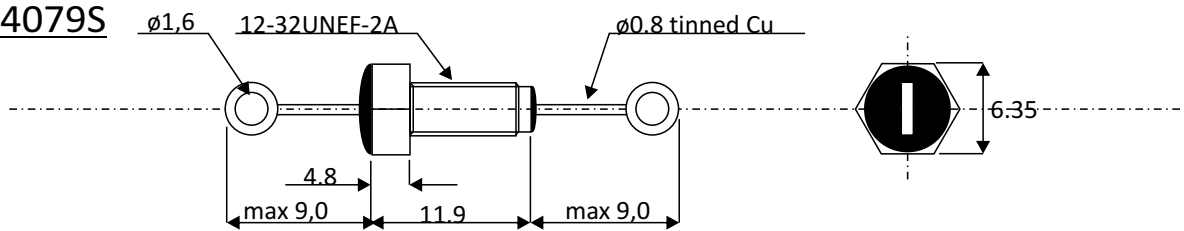
Special versions in same style

33824065D



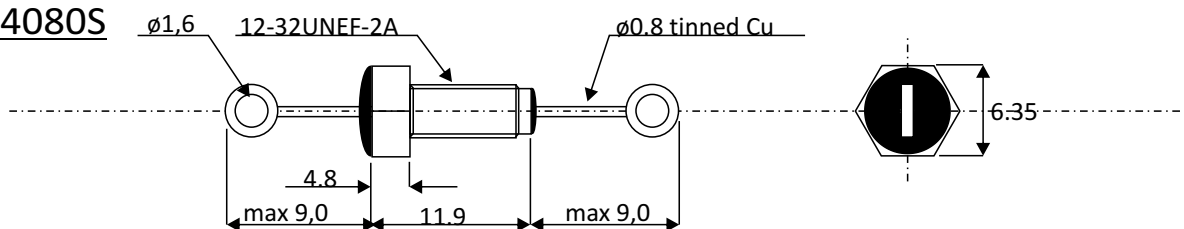
| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824065D | 2x2000 | -0/+100 | 500 | 15 | 2 | 25 | 65 | 80 |

33824079S



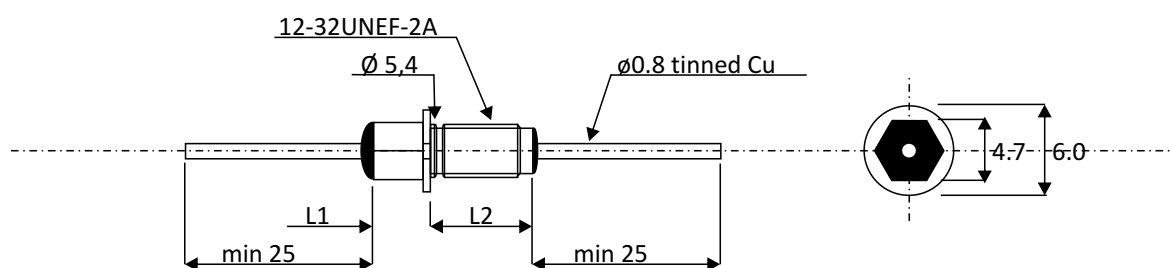
| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824079S | 2x1500 | -0/+50 | 250 | 10 | 0 | 15 | 60 | 80 |

33824080S



| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824080S | 2x6000 | GMV | 250 | 10 | 2 | 30 | 75 | 80 |

33824230D/231D/232D/233D/234D/235D



Working voltage

250Vdc.

Test voltage

750Vdc 1min.

Feed-through current

See below

Insulation resistance

min 10000 MOhm.

IEC category

55/125/56

Capacitance

See below

Inductance

1000nH-50/+100%

Soldering conditions

max 250deg C

Marking

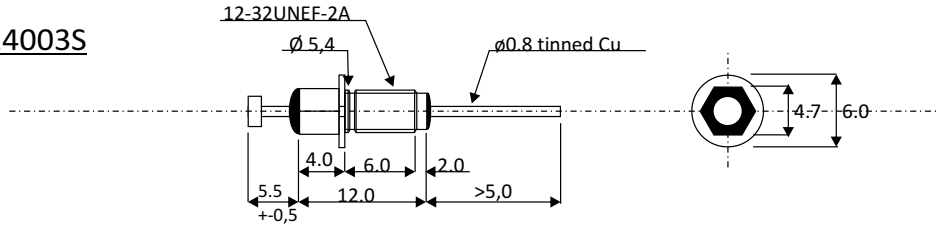
None.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824230D | 4,0 | 8,0 | 2x60 | -20/+80 | 100 | 10 | - | 1 | 12 | 60 |
| 33824231D | 4,0 | 8,0 | 2x200 | -20/+80 | 100 | 10 | - | 4 | 20 | 65 |
| 33824232D | 4,0 | 8,0 | 2x800 | -20/+80 | 100 | 10 | - | 12 | 40 | 70 |
| 33824233D | 4,0 | 8,0 | 2x1500 | GMV | 100 | 10 | 1 | 15 | 60 | 80 |
| 33824234D | 4,0 | 8,0 | 2x3000 | GMV | 100 | 10 | 2 | 25 | 75 | 80 |
| 33824235D | 4,0 | 8,0 | 2x6000 | GMV | 100 | 10 | 2- | 30 | 75 | 80 |

Other capacitances or wires are available upon request.

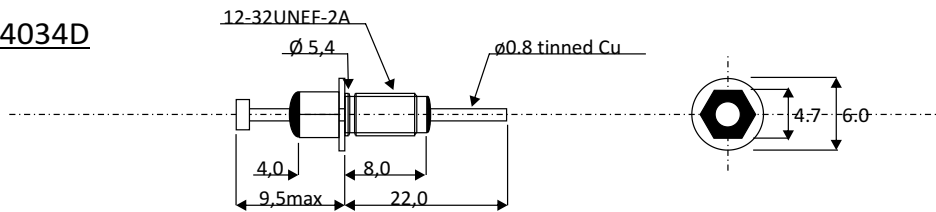
Special versions in same style

33824003S



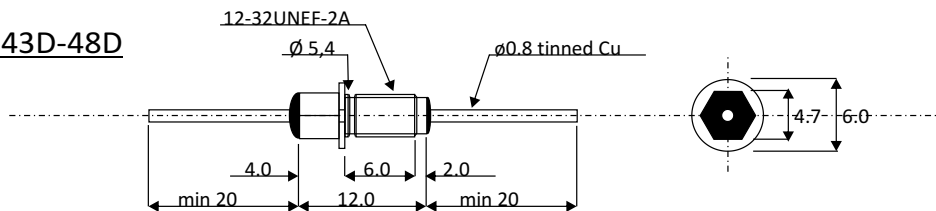
| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|--------|--------------|-----|-----|---------------------------|--------|---------|-------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824003S | 2x800 | -0/+80 | 250 | 10 | 0 | 12 | 40 | 70 |

33824034D



| Type number | CAP pF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|--------|--------------|-----|-----|---------------------------|--------|---------|-------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824034D | 2x2500 | GMV | 250 | 10 | 2 | 25 | 70 | 80 |

33824043D-48D



| | |
|----------------------------|-----------------|
| Working voltage..... | 100Vdc. |
| Test voltage..... | 250Vdc 1min. |
| Insulation resistance..... | min 10000 MOhm. |
| IEC category..... | 55/125/56 |
| Capacitance | min. 2 x 22nF |
| Soldering conditions..... | 250deg C |

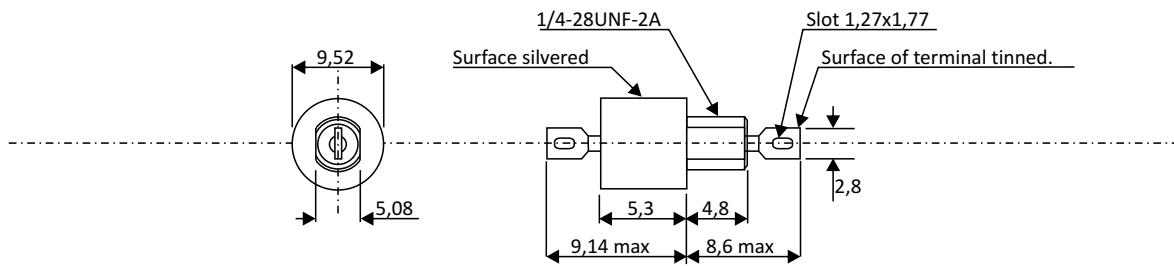
| Type numb. | Mar-king | Current max (A) | L uH | DC R Ohm | Attenuation dB (typical values) 50 Ohm | | | | |
|------------|----------|-----------------|------|----------|--|------|-------|--------|------|
| | | | | | 0,1MHz | 1MHz | 10MHz | 100MHz | 1GHz |
| 33824043D | Brown | 0,1 | 200 | 7 | 0 | 35 | 80 | 80 | 80 |
| 33824044D | Red | 0,2 | 50 | 1,8 | 0 | 10 | 80 | 80 | 80 |
| 33824045D | Orang | 0,5 | 15 | 0,6 | 0 | 0 | 80 | 80 | 80 |
| 33824046D | Yellow | 1 | 2,5 | 0,15 | 0 | 0 | 62 | 80 | 80 |
| 33824047D | Green | 2 | 0,9 | 0,05 | 0 | 0 | 45 | 80 | 80 |
| 33824048D | Blue | 5 | 0,5 | 0,01 | 0 | 0 | 23 | 80 | 80 |

L-filter

Inch thread

33824017D

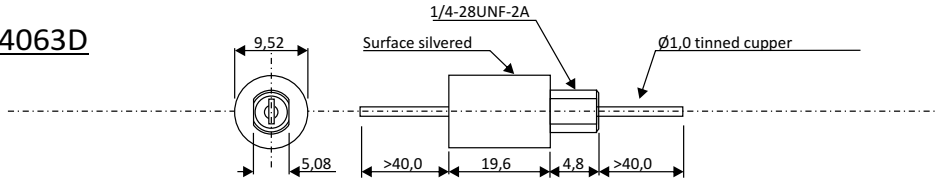
ROHS compliant.
 Filter resin sealed in both ends
 All dimensions in mm.



| | |
|-----------------------------------|------------------|
| Working voltage | 100Vdc |
| Test voltage | 250Vdc 1min. |
| Feed-through current | max 25A |
| Insulation resistance | min 10000 MOhm. |
| IEC category | 55/125/56 |
| Capacitance (total) | 1200nF -20/+80%. |
| Inductance | 2000nH min |
| Soldering conditions on terminals | max 250 deg C |
| Marking | None. |
| Atenuation (typical values) | |
| 0,1MHz | 25dB |
| 1MHz | 45dB |
| 10 MHz | 60dB |
| 100 MHz | 70dB |
| 1000 MHz | 70dB |

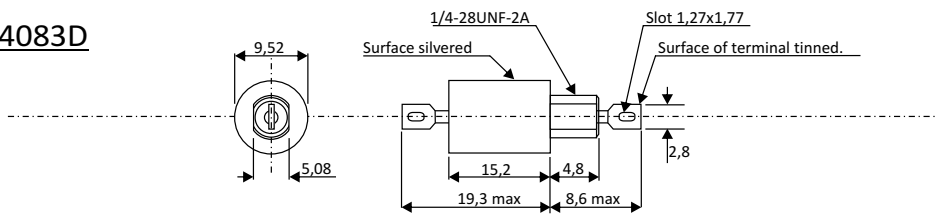
Special versions in same style

33824063D



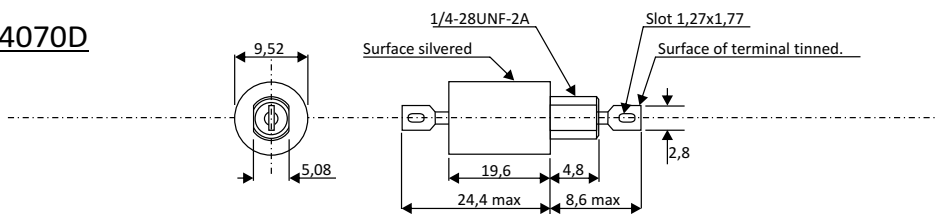
| Type number | CAP nF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824063S | 2x600 | -20/+80 | 100 | 2 | 45 | 70 | 70 | 70 |

33824083D



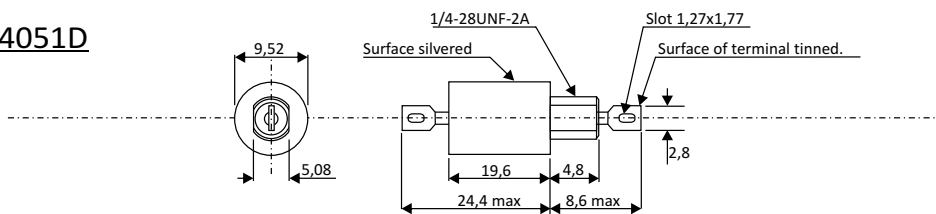
| Type number | CAP nF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824083D | 2x600 | -20/+80 | 100 | 25 | 45 | 70 | 70 | 70 |

33824070D



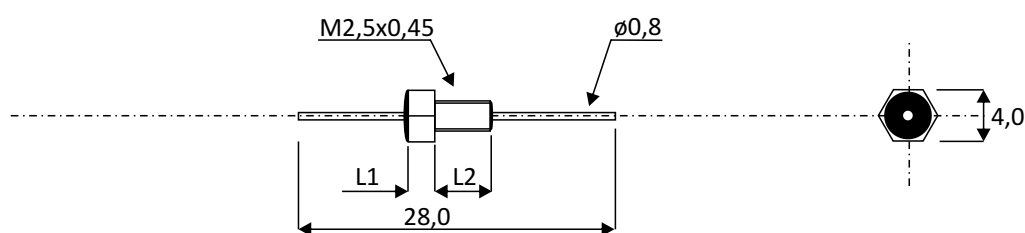
| Type number | CAP nF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824070D | 2x1200 | -20/+80 | 100 | 25 | 70 | 70 | 70 | 70 |

33824051D



| Type number | CAP nF | TOL % or GMV | Vdc | I A | Typical insertion loss dB | | | |
|-------------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33824051D | 1200 | -20/+80 | 100 | 30 | 45 | 60 | 70 | 70 |

Bushing mount sealed feed through capacitor M2,5x0,45.



Working voltage

Test voltage

Feed-through current

Insulation resistance

IEC category

Capacitance

Marking

Soldering on leads

See below.

2,5 x working voltage 1min.

See below

min 10000 MOhm.

55/125/56

See below

None

Max 270 deg C.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Minimum insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33814030D | 2,5 | 4,0 | 100 | -20/+80 | 100 | 10 | - | - | 3 | 20 |
| 33814031D | 2,5 | 4,0 | 200 | -20/+80 | 100 | 10 | - | - | 6 | 23 |
| 33814032D | 2,5 | 4,0 | 500 | -20/+80 | 100 | 10 | - | - | 15 | 35 |
| 33814033D | 2,5 | 4,0 | 1000 | -20/+80 | 100 | 10 | - | 5 | 20 | 38 |
| 33814034D | 2,5 | 4,0 | 2000 | GMV | 100 | 10 | - | 8 | 23 | 41 |
| 33814035D | 2,5 | 4,0 | 5000 | GMV | 100 | 10 | - | 15 | 30 | 45 |
| 33814036D | 2,5 | 4,0 | 10000 | GMV | 100 | 10 | 3 | 21 | 35 | 50 |
| 33814037D | 2,5 | 4,0 | 20000 | GMV | 100 | 10 | 7 | 25 | 37 | 50 |

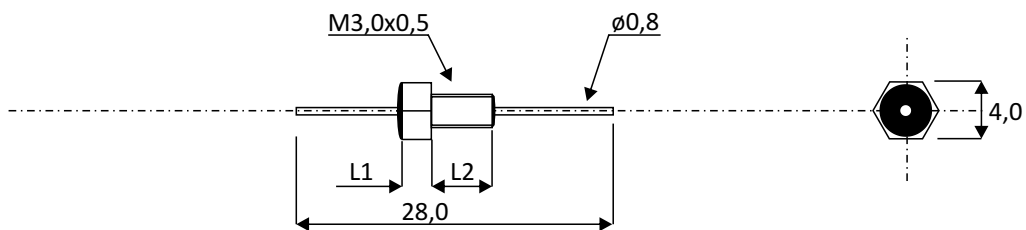
Other capacitances or wires are available upon request.

Feed-through capacitor

Metric thread

33814040D/41D/42D/43D/44D/45D/46D/47D

Bushing mount sealed feed through capacitor M3,0x0,5.



Working voltage

See below.

Test voltage

2,5 x working voltage 1min.

Feed-through current

See below

Insulation resistance

min 10000 MOhm.

IEC category

55/125/56

Capacitance

See below

Marking

None

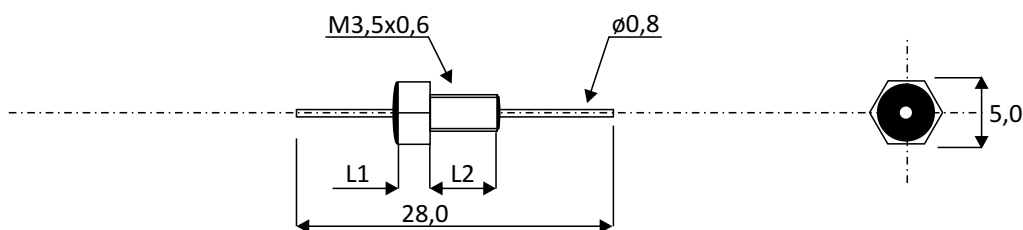
Soldering on leads

Max 270 deg C.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Minimum insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33814040D | 3,5 | 4,5 | 100 | -20/+80 | 100 | 10 | - | - | 3 | 20 |
| 33814041D | 3,5 | 4,5 | 200 | -20/+80 | 100 | 10 | - | - | 6 | 23 |
| 33814042D | 3,5 | 4,5 | 500 | -20/+80 | 100 | 10 | - | - | 15 | 35 |
| 33814043D | 3,5 | 4,5 | 1000 | -20/+80 | 100 | 10 | - | 5 | 20 | 38 |
| 33814044D | 3,5 | 4,5 | 2000 | GMV | 100 | 10 | - | 8 | 23 | 41 |
| 33814045D | 3,5 | 4,5 | 5000 | GMV | 100 | 10 | - | 15 | 30 | 45 |
| 33814046D | 3,5 | 4,5 | 10000 | GMV | 100 | 10 | 3 | 21 | 35 | 50 |
| 33814047D | 3,5 | 4,5 | 20000 | GMV | 100 | 10 | 7 | 25 | 37 | 50 |

Other capacitances or wires are available upon request.

Bushing mount sealed feed through capacitor M3,5x0,6.



Working voltage

See below.

Test voltage

2,5 x working voltage 1min.

Feed-through current

See below

Insulation resistance

min 10000 MOhm.

IEC category

55/125/56

Capacitance

See below

Marking

None

Soldering on leads

Max 270 deg C.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Minimum insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33814050D | 3,5 | 4,5 | 100 | -20/+80 | 100 | 10 | - | - | 3 | 20 |
| 33814051D | 3,5 | 4,5 | 200 | -20/+80 | 100 | 10 | - | - | 6 | 23 |
| 33814052D | 3,5 | 4,5 | 500 | -20/+80 | 100 | 10 | - | - | 15 | 35 |
| 33814053D | 3,5 | 4,5 | 1000 | -20/+80 | 100 | 10 | - | 5 | 20 | 38 |
| 33814054D | 3,5 | 4,5 | 2000 | GMV | 100 | 10 | - | 8 | 23 | 41 |
| 33814055D | 3,5 | 4,5 | 5000 | GMV | 100 | 10 | - | 15 | 30 | 45 |
| 33814056D | 3,5 | 4,5 | 10000 | GMV | 100 | 10 | 3 | 21 | 35 | 50 |
| 33814057D | 3,5 | 4,5 | 20000 | GMV | 100 | 10 | 7 | 25 | 37 | 50 |
| 33814058D | 3,5 | 4,5 | 50000 | GMV | 100 | 10 | 13 | 32 | 42 | 50 |

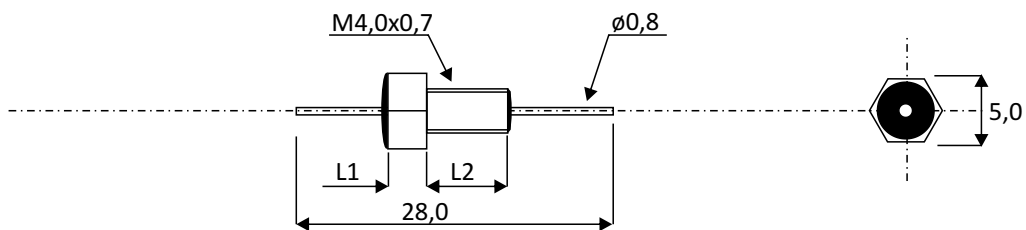
Other capacitances or wires are available upon request.

Feed-through capacitor

Metric thread

33814060D/61D/62D/63D/64D/65D/66D67D/68D

Bushing mount sealed feed through capacitor M4,0x0,7.



Working voltage

See below.

Test voltage

2,5 x working voltage 1min.

Feed-through current

See below

Insulation resistance

min 10000 MOhm.

IEC category

55/125/56

Capacitance

See below

Marking

None

Soldering on leads

Max 270 deg C.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Minimum insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33814060D | 3,5 | 4,5 | 100 | -20/+80 | 100 | 10 | - | - | 3 | 20 |
| 33814061D | 3,5 | 4,5 | 200 | -20/+80 | 100 | 10 | - | - | 6 | 23 |
| 33814062D | 3,5 | 4,5 | 500 | -20/+80 | 100 | 10 | - | - | 15 | 35 |
| 33814063D | 3,5 | 4,5 | 1000 | -20/+80 | 100 | 10 | - | 5 | 20 | 38 |
| 33814064D | 3,5 | 4,5 | 2000 | GMV | 100 | 10 | - | 8 | 23 | 41 |
| 33814065D | 3,5 | 4,5 | 5000 | GMV | 100 | 10 | - | 15 | 30 | 45 |
| 33814066D | 3,5 | 4,5 | 10000 | GMV | 100 | 10 | 3 | 21 | 35 | 50 |
| 33814067D | 3,5 | 4,5 | 20000 | GMV | 100 | 10 | 7 | 25 | 37 | 50 |
| 33814068D | 3,5 | 4,5 | 50000 | GMV | 100 | 10 | 13 | 32 | 42 | 50 |

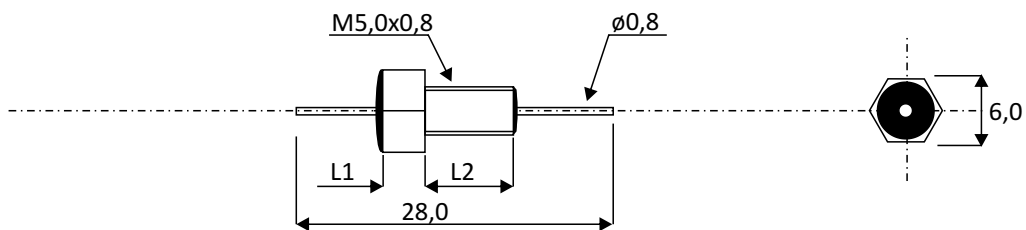
Other capacitances or wires are available upon request.

Feed-through capacitor

Metric thread

33814070D/71D/72D/73D/74D/75D/76D/77D/78D

Bushing mount sealed feed through capacitor M5,0x0,8.



Working voltage

Test voltage

Feed-through current

Insulation resistance

IEC category

Capacitance

Marking

Soldering on leads

See below.

2,5 x working voltage 1min.

See below

min 10000 MOhm.

55/125/56

See below

None

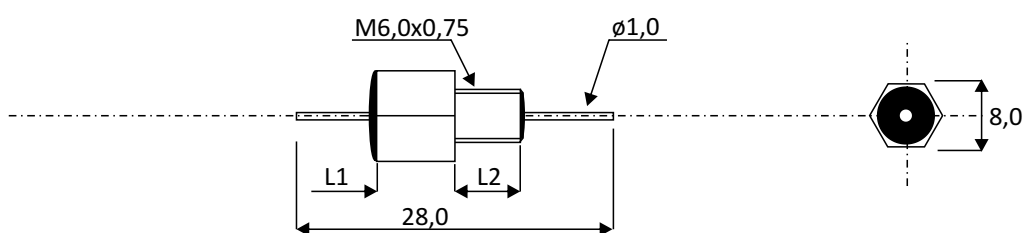
Max 270 deg C.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Minimum insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33814070D | 4,0 | 8,0 | 100 | -20/+80 | 100 | 10 | - | - | 3 | 20 |
| 33814071D | 4,0 | 8,0 | 200 | -20/+80 | 100 | 10 | - | - | 6 | 23 |
| 33814072D | 4,0 | 8,0 | 500 | -20/+80 | 100 | 10 | - | - | 15 | 35 |
| 33814073D | 4,0 | 8,0 | 1000 | -20/+80 | 100 | 10 | - | 5 | 20 | 38 |
| 33814074D | 4,0 | 8,0 | 2000 | GMV | 100 | 10 | - | 8 | 23 | 41 |
| 33814075D | 4,0 | 8,0 | 5000 | GMV | 100 | 10 | - | 15 | 30 | 45 |
| 33814076D | 4,0 | 8,0 | 10000 | GMV | 100 | 10 | 3 | 21 | 35 | 50 |
| 33814077D | 4,0 | 8,0 | 20000 | GMV | 100 | 10 | 7 | 25 | 37 | 50 |
| 33814078D | 4,0 | 8,0 | 50000 | GMV | 100 | 10 | 13 | 32 | 42 | 50 |

Other capacitances or wires are available upon request.

33814080D/81D/82D/83D/84D/85D/86D/87D/88D/89D

Bushing mount sealed feed through capacitor M6,0x0,75.



Working voltage

See below.

Test voltage

2,5 x working voltage 1min.

Feed-through current

See below

Insulation resistance

min 10000 MOhm.

IEC category

55/125/56

Capacitance

See below

Marking

None

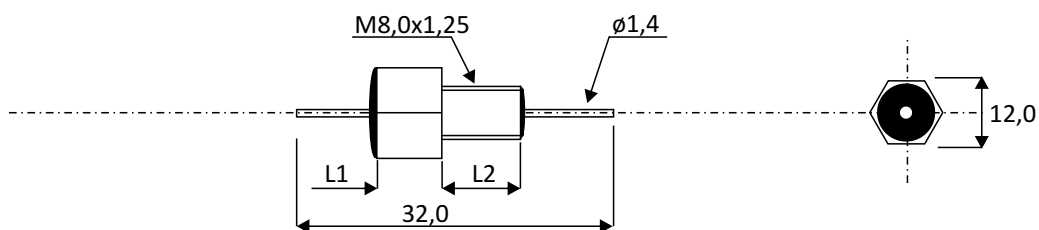
Soldering on leads

Max 270 deg C.

| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Minimum insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33814080D | 7,4 | 5,1 | 100 | -20/+80 | 100 | 15 | - | - | 3 | 20 |
| 33814081D | 7,4 | 5,1 | 200 | -20/+80 | 100 | 15 | - | - | 6 | 23 |
| 33814082D | 7,4 | 5,1 | 500 | -20/+80 | 100 | 15 | - | - | 15 | 35 |
| 33814083D | 7,4 | 5,1 | 1000 | -20/+80 | 100 | 15 | - | 5 | 20 | 38 |
| 33814084D | 7,4 | 5,1 | 2000 | GMV | 100 | 15 | - | 8 | 23 | 41 |
| 33814085D | 7,4 | 5,1 | 5000 | GMV | 100 | 15 | - | 15 | 30 | 45 |
| 33814086D | 7,4 | 5,1 | 10000 | GMV | 100 | 15 | 3 | 21 | 35 | 50 |
| 33814087D | 7,4 | 5,1 | 20000 | GMV | 100 | 15 | 7 | 25 | 37 | 50 |
| 33814088D | 7,4 | 5,1 | 50000 | GMV | 100 | 15 | 13 | 32 | 42 | 50 |
| 33814089D | 7,4 | 5,1 | 100000 | GMV | 100 | 15 | 19 | 39 | 50 | 50 |

Other capacitances or wires are available upon request.

Bushing mount sealed feed through capacitor M8,0x1,25.



Working voltage

See below.

Test voltage

2,5 x working voltage 1min.

Feed-through current

See below

Insulation resistance

min 10000 MOhm.

IEC category

55/125/56

Capacitance

See below

Marking

None

Soldering on leads

Max 270 deg C.

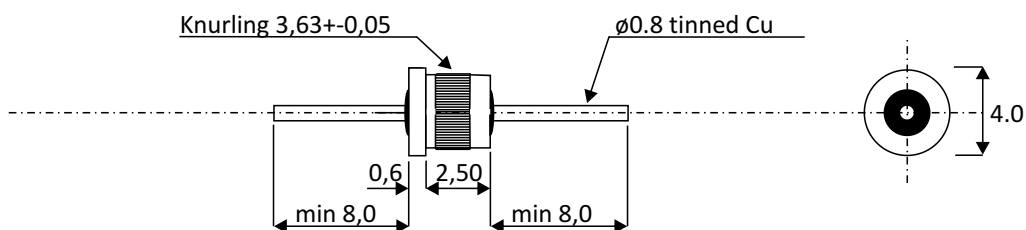
| Type number | L1 mm | L2 mm | CAP pF | TOL % or GMV | Vdc | I A | Minimum insertion loss dB | | | |
|-------------|----------|----------|-----------|--------------------|-----|--------|---------------------------|-----------|------------|----------|
| | | | | | | | 1 Mhz | 10 Mhz | 100 Mhz | 1 Ghz |
| 33814090D | 8,0 | 10,0 | 100 | -20/+80 | 100 | 25 | - | - | 3 | 20 |
| 33814091D | 8,0 | 10,0 | 200 | -20/+80 | 100 | 25 | - | - | 6 | 23 |
| 33814092D | 8,0 | 10,0 | 500 | -20/+80 | 100 | 25 | - | - | 15 | 35 |
| 33814093D | 8,0 | 10,0 | 1000 | -20/+80 | 100 | 25 | - | 5 | 20 | 38 |
| 33814094D | 8,0 | 10,0 | 2000 | GMV | 100 | 25 | - | 8 | 23 | 41 |
| 33814095D | 8,0 | 10,0 | 5000 | GMV | 100 | 25 | - | 15 | 30 | 45 |
| 33814096D | 8,0 | 10,0 | 10000 | GMV | 100 | 25 | 3 | 21 | 35 | 50 |
| 33814097D | 8,0 | 10,0 | 20000 | GMV | 100 | 25 | 7 | 25 | 37 | 50 |
| 33814098D | 8,0 | 10,0 | 50000 | GMV | 100 | 25 | 13 | 32 | 42 | 50 |
| 33814099D | 8,0 | 10,0 | 100000 | GMV | 100 | 25 | 19 | 39 | 50 | 50 |

Other capacitances or wires are available upon request.

Feed-through capacitor - 3,63mm dia

32813100D / 102 / 104 / 106 / 108

Press-fit Feed-through capacitor for mounting in a 3,46mm hole.



| | |
|--|-----------------|
| Working voltage..... | 200Vdc. |
| Test voltage..... | 600Vdc 1min. |
| Feed-through current..... | max 10A |
| Insulation resistance..... | min 10000 MOhm. |
| IEC category..... | 55/125/56 |
| Capacitance..... | See below |
| Marking..... | None |
| Mounting hole..... | 3,46mm-+0,01. |
| Recommended outside dia. of mounting tool..... | 4,0mm |
| Recommended inside dia. of mounting tool..... | 2,5mm |

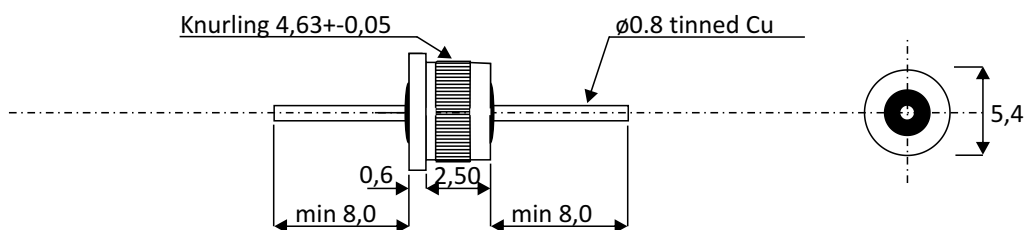
Proper installation requires firm, steady pressure until flange is fully seated.

| Type number | Capacitance and tolerance |
|-------------|---------------------------|
| 32813100D | 10pF max |
| 32813102D | 100pF -20/+100% |
| 32813104D | 150pF -20/+100% |
| 32813106D | 470pF -20/+100% |
| 32813108D | 680pF -20/+100% |

Feed-through capacitor - 4,63mm dia

32813110D / 112 / 114 / 116 / 118

Press-fit Feed-through capacitor for mounting in a 4,46mm hole.



| | |
|--|-----------------|
| Working voltage..... | 200Vdc. |
| Test voltage..... | 600Vdc 1min. |
| Feed-through current..... | max 10A |
| Insulation resistance..... | min 10000 MOhm. |
| IEC category..... | 55/125/56 |
| Capacitance..... | See below |
| Marking..... | None |
| Mounting hole..... | 4,46mm-+0,01. |
| Recommended outside dia. of mounting tool..... | 4,0mm |
| Recommended inside dia. of mounting tool..... | 2,5mm |

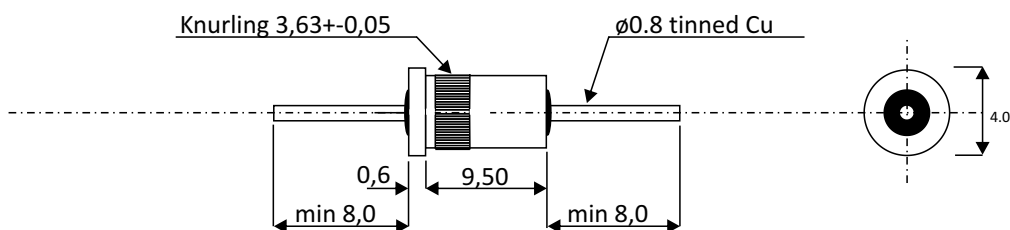
Proper installation requires firm, steady pressure until flange is fully seated.

| Type number | Capacitance and tolerance |
|-------------|---------------------------|
| 32813110D | 10pF max |
| 32813112D | 100pF -20/+100% |
| 32813114D | 150pF -20/+100% |
| 32813116D | 470pF -20/+100% |
| 32813118D | 680pF -20/+100% |

Pi-filter - 3,63MM DIA

33824104D / 106D / 108D

Press-fit Feed-through capacitor for mounting in a 3,46mm hole.



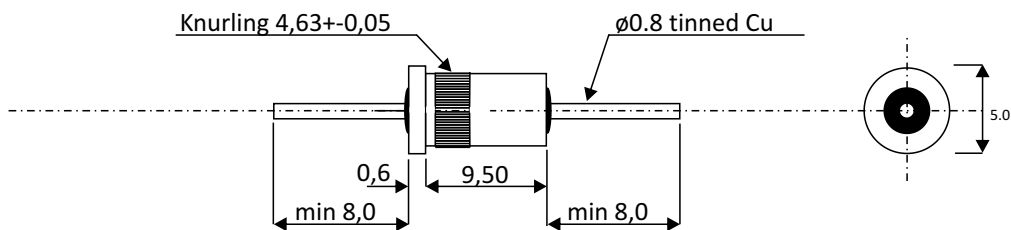
| | |
|--|------------------------------|
| Working voltage | 100Vdc. |
| Test voltage | 250Vdc 1min. |
| Feed-through current | max 10A |
| Insulation resistance | min 10000MΩ |
| IEC category | 55/125/56 |
| Capacitance | See below |
| Inductance | 300nH min |
| Marking | None |
| Potting (silicone rubber) | Must be potted in both ends. |
| Mounting hole | 3,46mm+0,02. |
| Maximum axial force on leads | 20N |
| Recommended outside dia. of mounting tool | 4,0mm |
| Recommended inside dia. of mounting tool | 2,5mm |
| Proper installation requires firm, steady pressure | |

| Type number | Capacitance and tolerance | Attenuation dB (typical values) | | | |
|-------------|---------------------------|---------------------------------|-------|--------|------|
| | | 1MHz | 10MHz | 100MHz | 1GHz |
| 33824104D | 1500pF GMV | 0 | 8 | 55 | 60 |
| 33824106D | 3000pF GMV | 0 | 12 | 65 | 70 |
| 33824108D | 10000pF GMV | 2 | 30 | 75 | 80 |

Pi-filter - 4,63MM DIA

33824110D / 112D / 114D / 116D / 118D

Press-fit Feed-through capacitor for mounting in a 4,46mm hole.

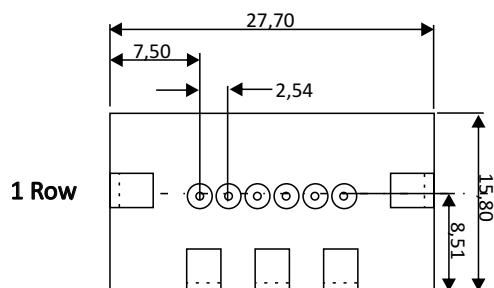


| | |
|--|------------------------------|
| Working voltage | 100Vdc. |
| Test voltage | 250Vdc 1min. |
| Feed-through current | max 10A |
| Insulation resistance | min 10000MΩ |
| IEC category | 55/125/56 |
| Capacitance | See below |
| Inductance | 300nH min |
| Marking | None |
| Potting (silicone rubber) | Must be potted in both ends. |
| Mounting hole | 4,46mm+0,02. |
| Maximum axial force on leads | 20N |
| Recommended outside dia. of mounting tool | 5,0mm |
| Recommended inside dia. of mounting tool | 3,5mm |
| Proper installation requires firm, steady pressure | |

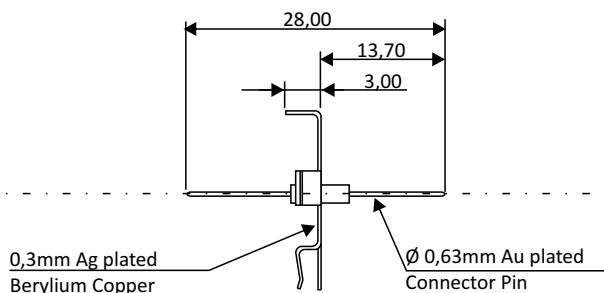
| Type number | Capacitance and tolerance | Attenuation dB (typical values) | | | |
|-------------|---------------------------|---------------------------------|-------|--------|------|
| | | 1MHz | 10MHz | 100MHz | 1GHz |
| 33824110D | 100pF -20/+80% | | | 5 | 35 |
| 33824112D | 500pF -20/+80% | | 3 | 24 | 60 |
| 33824114D | 1500pF GMV | 0 | 8 | 55 | 60 |
| 33824116D | 3000pF GMV | 0 | 12 | 65 | 70 |
| 33824118D | 5000pF GMV | 2 | 30 | 75 | 80 |

EASY PLATE SHORT - C-FILTER ARRAYS

338170XXD

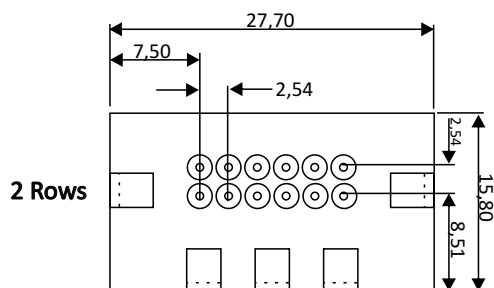


1 Row



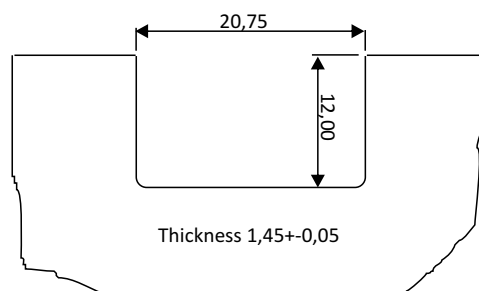
0,3mm Ag plated
Beryllium Copper

Ø 0,63mm Au plated
Connector Pin



2 Rows

Easy Plate Chassis Cut-out.



Working voltage
Feed-through current

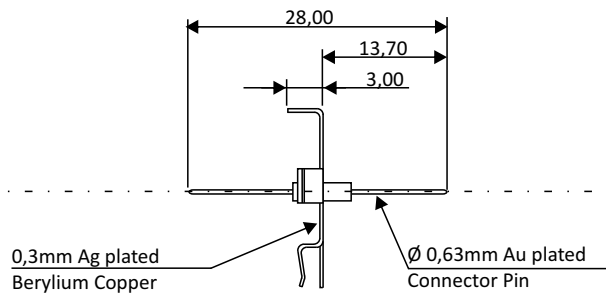
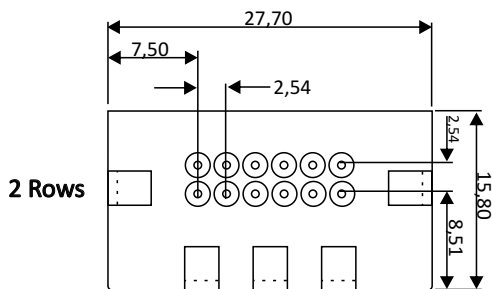
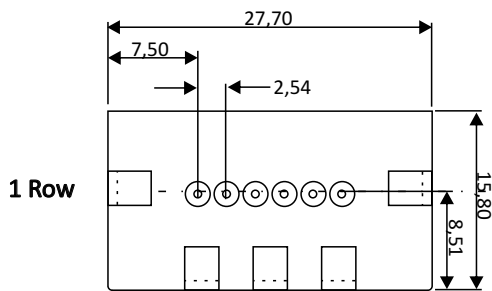
100Vdc.
max 5A

Easy Plate filterarrays can be delivered with other capacitance values, with mixed capacitance values and with other pin lay-outs. Connector Pins can be bended to customers specification.

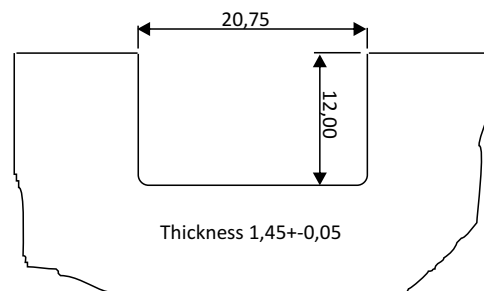
| Type number | No. Rows | Filters in Row | C-filter GMV |
|-------------|----------|----------------|--------------|
| 33817001 | 1 | 1 | 1000pF |
| 33817002 | 1 | 2 | 1000pF |
| 33817003 | 1 | 3 | 1000pF |
| 33817004 | 1 | 4 | 1000pF |
| 33817005 | 1 | 5 | 1000pF |
| 33817006 | 1 | 6 | 1000pF |
| 33817007 | 2 | 1 | 1000pF |
| 33817008 | 2 | 2 | 1000pF |
| 33817009 | 2 | 3 | 1000pF |
| 33817010 | 2 | 4 | 1000pF |
| 33817011 | 2 | 5 | 1000pF |
| 33817012 | 2 | 6 | 1000pF |
| | | | |

EASY PLATE SHORT - PI-FILTER ARRAYS

338271XXD



Easy Plate Chassis Cut-out.



Working voltage
Feed-through current
Inductance

100Vdc.
max 5A
min 100nH.

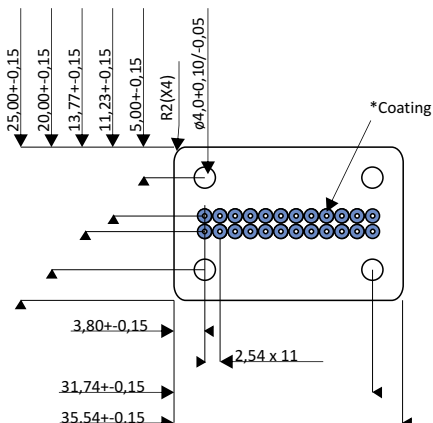
Easy Plate filterarrays can be delivered with other capacitance values, with mixed capacitance values and with other pin lay-outs. Connector Pins can be bended to customers specification.

| Type number | No. Rows | Filters in Row | PI-filter GMV |
|-------------|----------|----------------|---------------|
| 33827101 | 1 | 1 | 2x1000pF |
| 33827102 | 1 | 2 | 2x1000pF |
| 33827103 | 1 | 3 | 2x1000pF |
| 33827104 | 1 | 4 | 2x1000pF |
| 33827105 | 1 | 5 | 2x1000pF |
| 33827106 | 1 | 6 | 2x1000pF |
| 33827107 | 2 | 1 | 2x1000pF |
| 33827108 | 2 | 2 | 2x1000pF |
| 33827109 | 2 | 3 | 2x1000pF |
| 33827110 | 2 | 4 | 2x1000pF |
| 33827111 | 2 | 5 | 2x1000pF |
| 33827112 | 2 | 6 | 2x1000pF |
| | | | |

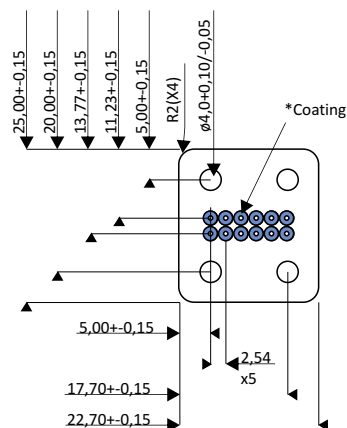
Pi-filter Array

33826006S/07S/08S/09S

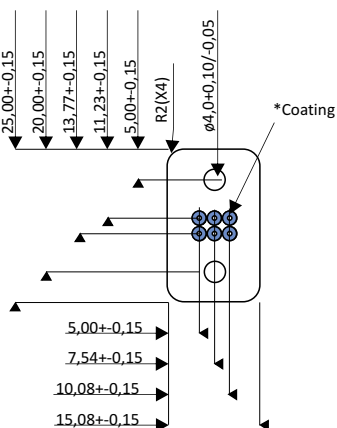
33826006S



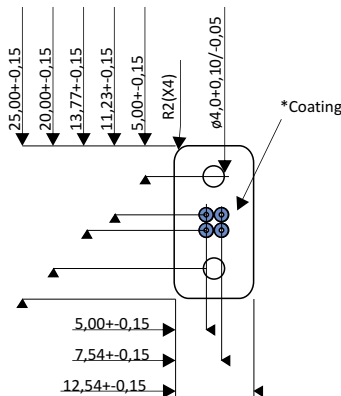
33826007S



33826008S



33826009S

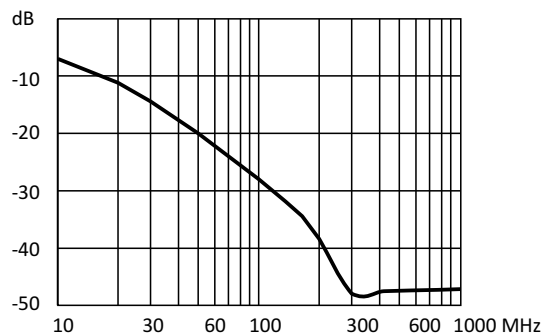
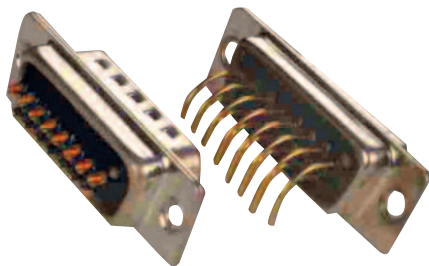


Groundplate: Nikel-silver, Sn-plated
 Connectorpin: Brass, Ni-plated, Au-plated
 * Coating: Blue hard silicone.

| | |
|---------------------------------------|-----------------|
| Working voltage..... | 100Vdc. |
| Test voltage..... | 250Vdc. |
| Feed-through current..... | max 5A |
| Insulation resistance..... | min 10000 MOhm. |
| IEC category..... | 55/085/56 |
| Capacitance (total)..... | 2 x 1nF GMV |
| Inductance..... | 100nH GMV |
| Marking..... | None. |
| Attenuation (typical values).....1MHz | 2dB |
| 10MHz | 12dB |
| 100MHz | 60dB |
| 1000MHz | 80dB |

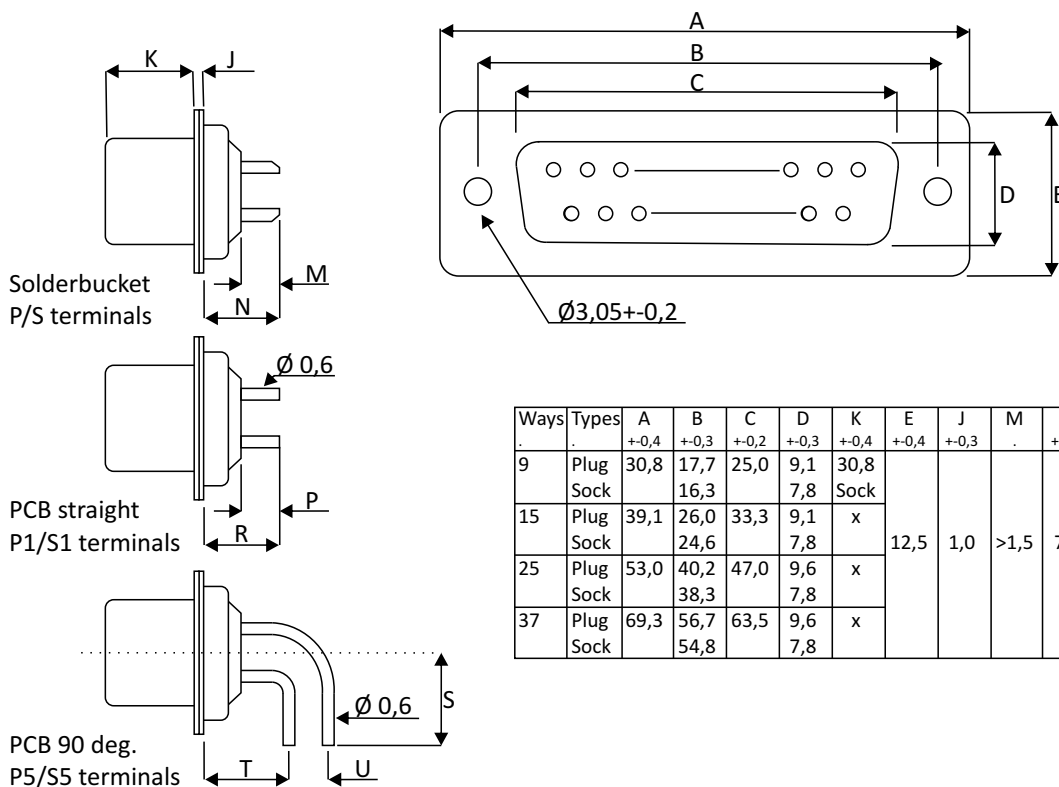
Standard SUB D connectors filtered with capacitors

General specifications



- Contacts
- Shell
- Minimum insertions
- Contact resistance
- Current rating
- Working voltage
- Capacitance
- Temperature range

- Au plated turned copper alloy
- Sn plated steel
- 500
- <10m Ohm
- 5A
- 100Vdc
- 1nF-20/+80%
- 55 to +125 degC.



| Ways | Types | A +0,4 | B +0,3 | C +0,2 | D +0,3 | K +0,4 | E +0,4 | J +0,3 | M | N +0,4 | P | R +0,4 | S +0,6 | T +0,3 | U +0,2 | |
|------|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|-----------|------|-----------|-----------|-----------|-----------|--|
| 9 | Plug | 30,8 | 17,7 | 25,0 | 9,1 | 30,8 | | | | | | | | | | |
| | Sock | | 16,3 | | 7,8 | Sock | | | | | | | | | | |
| 15 | Plug | 39,1 | 26,0 | 33,3 | 9,1 | x | 12,5 | 1,0 | >1,5 | 7,2 | >3,0 | 9,5 | 11,2 | 9,4 | 2,45 | |
| | Sock | | 24,6 | | 7,8 | | | | | | | | | | | |
| 25 | Plug | 53,0 | 40,2 | 47,0 | 9,6 | x | | | | | | | | | | |
| | Sock | | 38,3 | | 7,8 | | | | | | | | | | | |
| 37 | Plug | 69,3 | 56,7 | 63,5 | 9,6 | x | | | | | | | | | | |
| | Sock | | 54,8 | | 7,8 | | | | | | | | | | | |

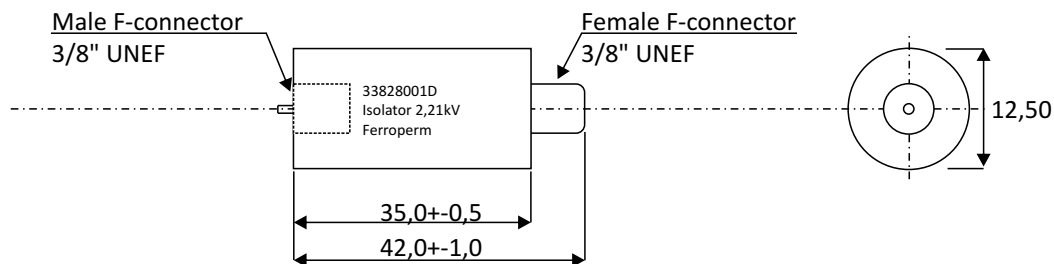
Standard SUB D connectors filtered with capacitors

Part numbers

| Part n. | No of ways and cap.. | Terminals | Typen. |
|-----------|----------------------|--------------|--------|
| B-2FC09P | 9x1nF-20/+80% | Solder buck. | Plug |
| B-2FC09S | 9x1nF-20/+80% | Solder buck. | Socket |
| B-2FC15P | 15x1nF-20/+80% | Solder buck. | Plug |
| B-2FC15S | 15x1nF-20/+80% | Solder buck. | Socket |
| B-2FC25P | 25x1nF-20/+80% | Solder buck. | Plug |
| B-2FC25S | 25x1nF-20/+80% | Solder buck. | Socket |
| B-2FC37P | 37x1nF-20/+80% | Solder buck. | Plug |
| B-2FC37S | 37x1nF-20/+80% | Solder buck. | Socket |
| B-2FC09P1 | 9x1nF-20/+80% | Solder buck. | Plug |
| B-2FC09S1 | 9x1nF-20/+80% | PCB straight | Socket |
| B-2FC15P1 | 15x1nF-20/+80% | PCB straight | Plug |
| B-2FC15S1 | 15x1nF-20/+80% | PCB straight | Socket |
| B-2FC25P1 | 25x1nF-20/+80% | PCB straight | Plug |
| B-2FC25S1 | 25x1nF-20/+80% | PCB straight | Socket |
| B-2FC37P1 | 37x1nF-20/+80% | PCB straight | Plug |
| B-2FC37S1 | 37x1nF-20/+80% | PCB straight | Socket |
| B-2FC09P5 | 9x1nF-20/+80% | PCB straight | Plug |
| B-2FC09S5 | 9x1nF-20/+80% | PCB 90 deg. | Socket |
| B-2FC15P5 | 15x1nF-20/+80% | PCB 90 deg. | Plug |
| B-2FC15S5 | 15x1nF-20/+80% | PCB 90 deg. | Socket |
| B-2FC25P5 | 25x1nF-20/+80% | PCB 90 deg. | Plug |
| B-2FC25S5 | 25x1nF-20/+80% | PCB 90 deg. | Socket |
| B-2FC37P5 | 37x1nF-20/+80% | PCB 90 deg. | Plug |
| B-2FC37S5 | 37x1nF-20/+80% | PCB 90 deg. | Socket |

Cable isolator - 3 element

33828001D



Test voltage (shield isolation)

Test voltage (center isolation)

Test voltage (shield isolation)

Capacitance (shield to shield)

Capacitance (center conductor)

Dielectric

Insertion loss

Return loss

Frequency range

Characteristic impedance

Marking

2012 Vdc 1min. Out/Out: 0,7mA max

1000 Vdc 1min. In/In: 0,7mA max

230Vac 1min. In/In: 8,0mA max

Out/Out: 2,0mA max

4,0±1,0 nF

4,0±1,0 nF

Z5U

typ 0,5 dB

typ 20 dB

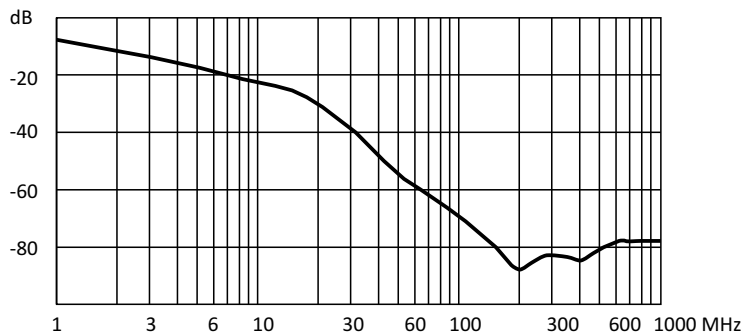
20-1000 MHz

75 Ohm

Type/Testvoltage/Manufacturer

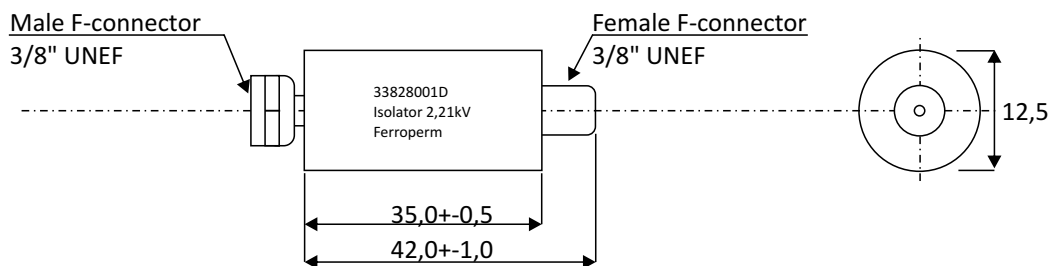
Shielding efficiency (75 Ohm line)

Typical curve



Cable isolator - 3 element

33828003D



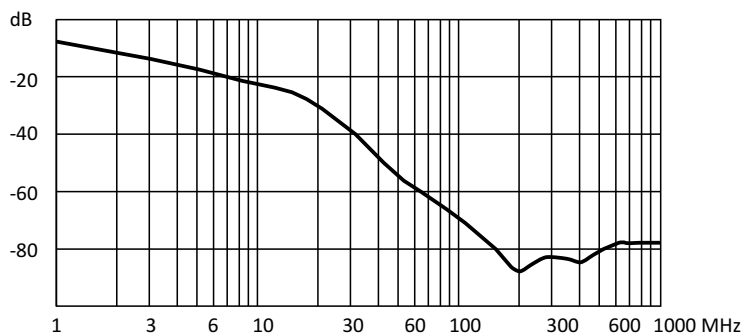
Test voltage (shield isolation)
 Test voltage (center isolation)
 Test voltage (shield isolation)

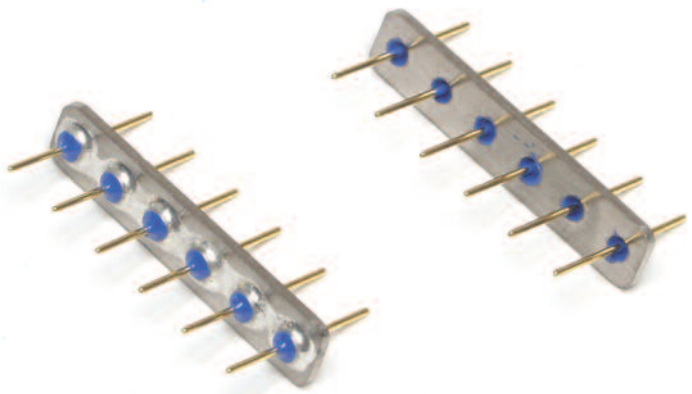
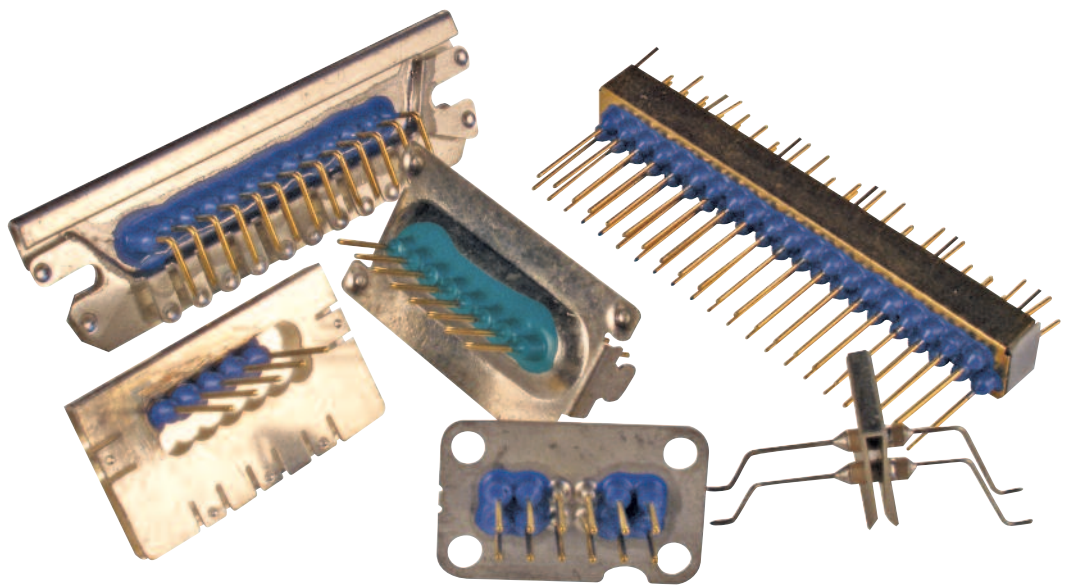
2012 Vdc 1min. Out/Out: 0,7mA max
 1000 Vdc 1min. In/In: 0,7mA max
 230Vac 1min. In/In: 8,0mA max
 Out/Out: 2,0mA max

Capacitance (shield to shield)
 Capacitance (center conductor)
 Dielectric
 Insertion loss
 Return loss
 Frequency range
 Characteristic impedance
 Marking

4,0±1,0 nF
 4,0±1,0 nF
 Z5U
 typ 0,5 dB
 typ 20 dB
 20-1000 MHz
 75 Ohm
 Type/Testvoltage/Manufacturer

Shielding efficiency (75 Ohm line)
 Typical curve







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