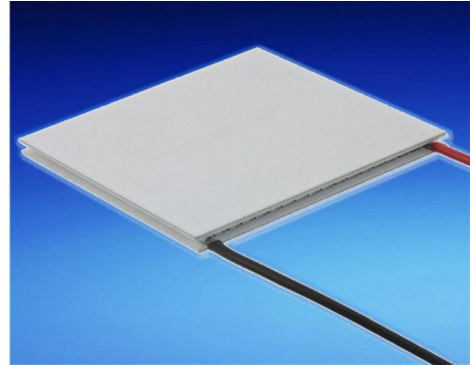


Thermoelectric Cooler Performance Specifications

TES1-031021-12X12S-W150

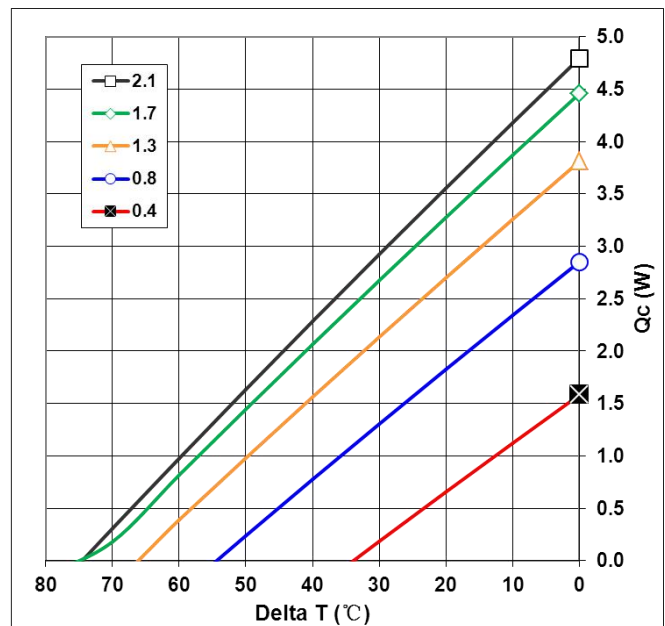
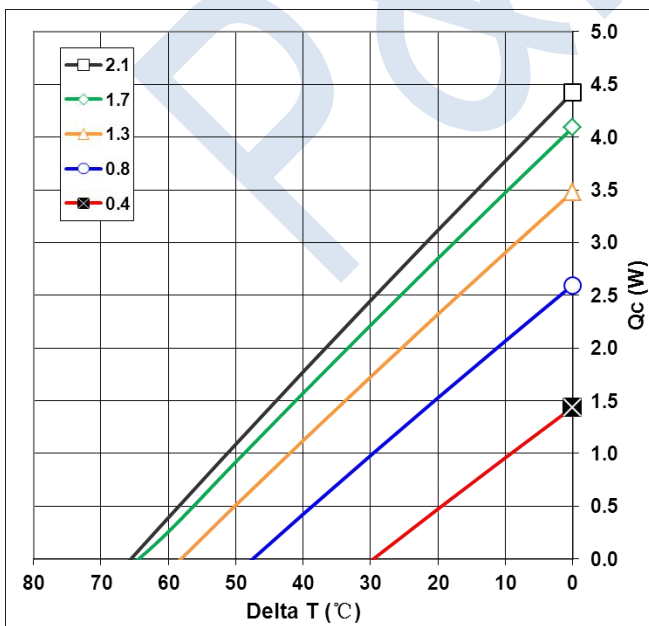
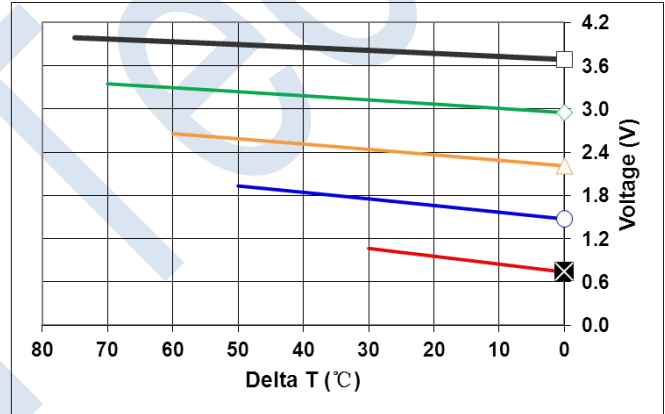
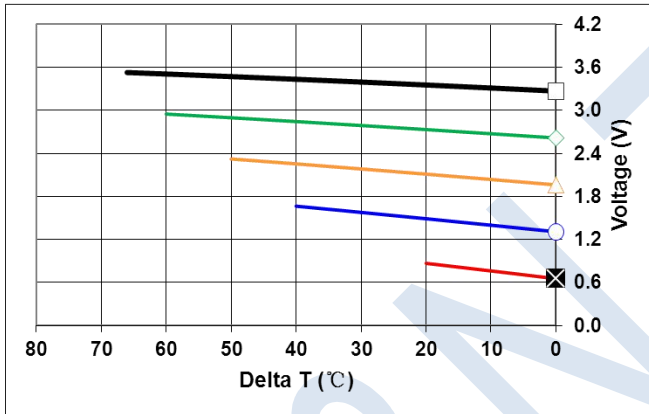
| Hot Side Temperature(°C) | 27 °C | 50 °C |
|--------------------------|-------|-------|
| Qmax (Watts) | 4.4 | 4.8 |
| Delta Tmax(°C) | 68 | 75 |
| I _{max} (Amps) | 2.1 | 2.1 |
| V _{max} (Volts) | 3.8 | 4.1 |
| Module Resistance(Ohms) | 1.55 | 1.75 |



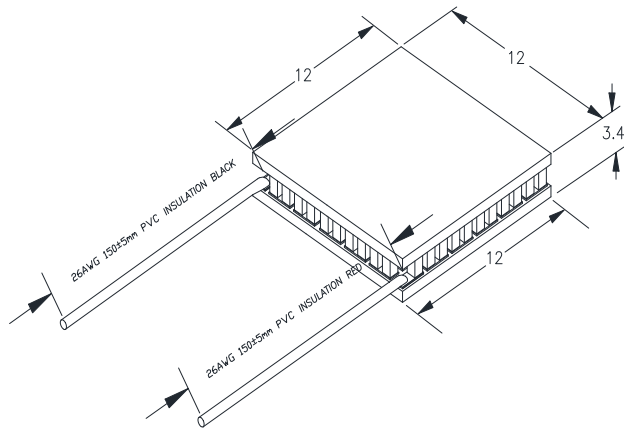
**Tolerances for thermal and electrical parameters ± 10%.

Performance Curves Th=27 °C

Performance Curves Th=50 °C



Mechanical Drawing:



Module is sealant by RTV sealant.

Operation Tips:

- Max Operating Temperature: **90°C**.
- Do not exceed I_{max} or V_{max} when operating module.
- Please consult P&N Technology for moisture and corrosion protection options.

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