ADVANCED THERMOELECTRIC

Technical Data Sheet

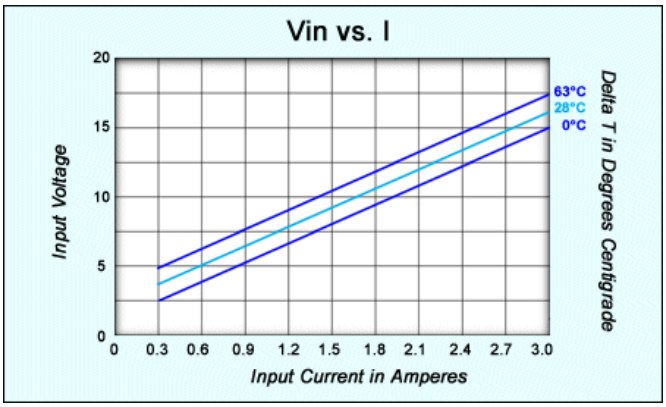
ST-127-1.0-3.0

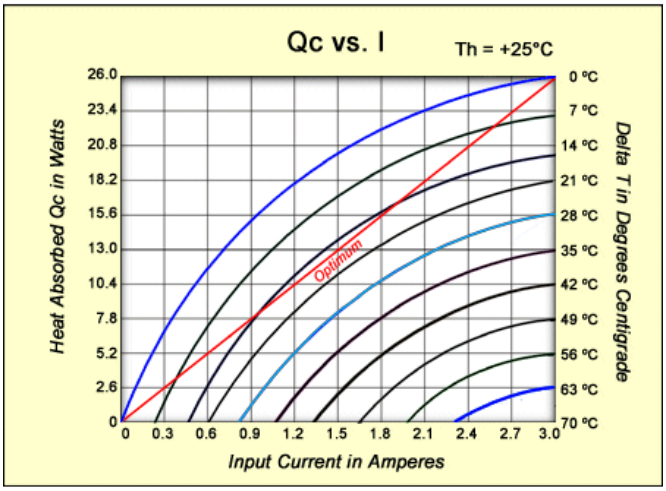
Standard Series Thermoelectric Module

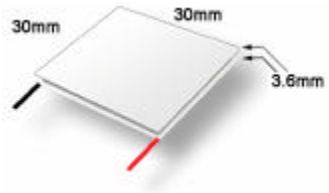
UNIT CODE	DESCRIPTION
ST-127-1.0-3.0	Thermoelectric Cooling Module

SPECIFICATIONS			
Current I_{max}	Voltage V_{max}	Cooling Capacity Q_{max}	Maximum Delta T DT_{max}
3.0 Amps	17.5 Volts	29 Watts	71 °C

PERFORMANCE CURVES (T_h = 25 °C)







TM-127-1.0-3.0M is our least powerful single-stage thermoelectric module, in the 30 x 30 mm footprint, intended for use with 12 to 15-volt DC power sources.

This module is best used in applications where loads (or DT's) are not substantial. This is often an excellent choice if temperature stabilization near ambient is desired or when space for a hot-side heat-sink is limited.

Available with metallized and tinned surface/s.

TM-127-1.0-3.0M may be used for cooling, heating and temperature stabilization and is employed in a wide range of applications including electro-optic/telecommunications, lab/scientific/biomedical, consumer and aerospace/military.

"HP" High Performance version also available.

100% QC (C of C available by Lot)
Operating temperature -50°C +150°C
Height, flatness and parallel variance: ± 0.02mm

Option Suffix designations:
Anti-corrosion Potting = "P"
Epoxy edge sealing = "E"
Lapping to ± 0.01mm = "L"
(for example ST-127-1.0-3.0"PE")

Module Characteristics and Value Descriptions:

I_{max} is the maximum (optimal) input current in amperes.
V_{max} is the maximum input voltage in volts when the current is optimal (I_{max}).
Q_{max} is the maximum amount of heat the module is capable of pumping. This value is achieved when there is no difference in the temperature (DT=0) on the modules two surfaces. If your application requires cooling, the heat pumping capacity will be less.

ΔT_{max} or DT_{max} is the maximum temperature differential between the hot and cold side of the module with no heat load (Q=0). As the thermal mass of the object to be cooled increases the ΔT becomes fewer degrees until Q_{max} is reached and ΔT=0.

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