ADVANCED THERMOELECTRIC

Technical Data Sheet

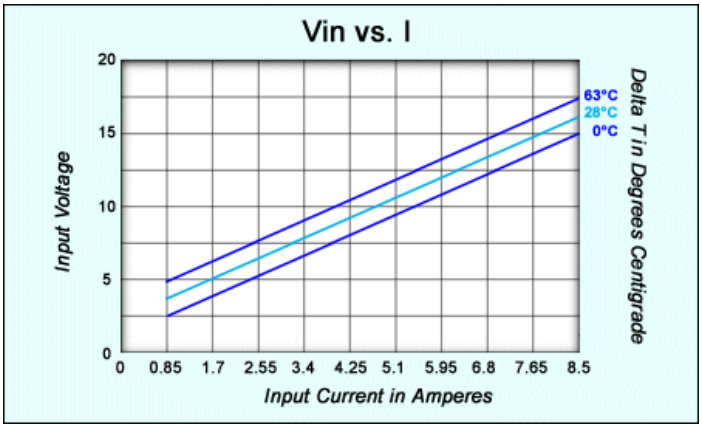
HP-127-1.4-8.5

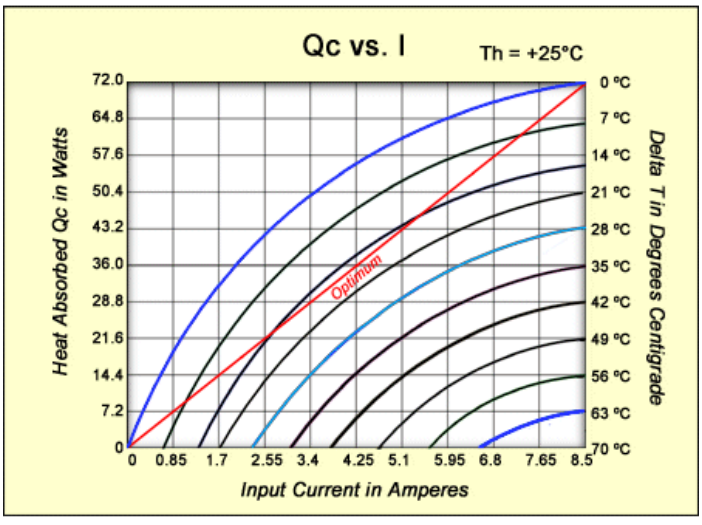
High Performance Thermoelectric Module

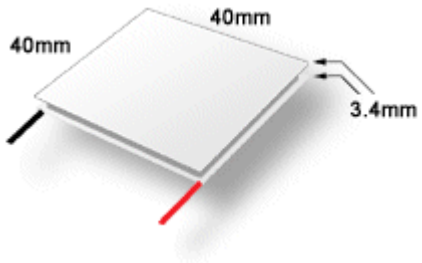
UNIT CODE	DESCRIPTION
HP-127-1.4-8.5	Thermoelectric Cooling Module

SPECIFICATIONS			
Current I_{max}	Voltage V_{max}	Cooling Capacity Q_{max}	Maximum Delta T ΔT_{max}
8.5 Amps	17.5 Volts	80 Watts	70 °C

PERFORMANCE CURVES (T_h = 25 °C)







Similar in size and performance to our standard series modules our "High Performance" modules are built with a different type of ceramics, solder rated for higher operating temperatures and improved antidiffusion barriers that allow the modules to be used in applications with a hot side temperature as high as +200ºC (+230ºC solder is available) or in applications that involve thermal cycling.

For these reasons HP-127-1.4-8.5 is suitable for a wide range of challenging applications including QC/Test, lab/scientific, biomedical, military, aerospace and industrial. Also available with porch, metallized and tinned surfaces and in strings from 2-12 modules long. (Reasonable minimum order requirements)

100% QC (C of C available by Lot)
Operating temperature -50°C +200°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 HP-127-1.4-8.5"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 DT becomes fewer degrees until Q_{max} is reached and DT=0.

ADVANCED THERMOELECTRIC · PO Box 7091 · Nashua, NH 03060 USA · 1 (866) 665-5434 · (603) 888-2467 · fax (603) 724-6740