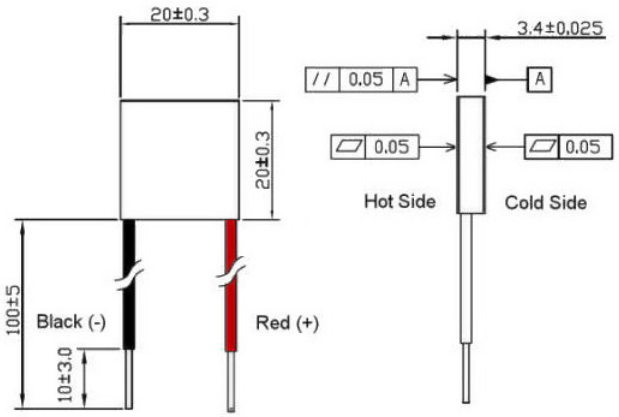
Technical Data Sheet

TM-31-1.4-8.5

Thermoelectric Cooling Module

Specifications (Hot-Side Temperature 27 °C)

I_{max} maximum current at ΔT_{max}	V_{max} maximum voltage at ΔT_{max}	Qc_{max} maximum cooling capacity at I_{max}, V_{max} and ΔT = 0 °C	ΔT_{max} maximum temperature difference at I_{max}, V_{max} and Qc = 0W	Internal Resistance
8.5 Amps	3.8 Volts	18.8 Watts	70 °C	0.35 Ω ± 10%



Dimensions: 20 x 20 x 3.4mm

Operating temperature range: -50 °C ~ +200 °C
(Solder melting point: +235 °C)

Thickness tolerance: ± 0.025mm
Flatness and parallel variance: ± 0.05mm
(Lapping to ± 0.01mm available.)

Standard lead wires: 20 AWG, Tin (Sn) plated at module interface, with a maximum temperature of +105 °C
(Other wiring options available)

Maximum recommended compression: 1Mpa

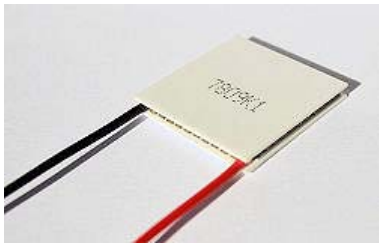
Ceramics: Alumina (AL_2O_3)
Available with metalized and tinned surfaces

Lot number (only) printed on the cold-side ceramic.

RoHS Compliant

Are you a manufacturer and need a slightly different module? Our TE modules can be customized in a variety of ways and we can likely provide precisely what you require. Let us know what you need and we'll be happy to let you know what we can do for you.

TM 31-1.4-8.5 Web Page



TM 31-1.4-8.5 is a general purpose single-stage thermoelectric module, with exceptional cooling capacity for a module powered by a 3.3V DC power source. With a 20 x 20 mm footprint and Qc_{max} of 18.8 watts, it's a great choice when voltage is limited and current is abundant.

TM 31-1.4-8.5 may be used for cooling, heating and thermal stabilization and is employed in a wide range of applications including including medical, analytical, laboratory & scientific instruments, electro-optics, telecommunications and military. A version for thermal cycling is available.

In electro-optic and photonic applications, TM 31-1.4-8.5 is commonly used to maintain a constant temperature in order to stabilize the wavelength of a diode, detector or sensor.

Standard Options (PN Suffix):

RTV Edge sealing = "RTV"
Epoxy edge sealing = "E"
Lapping to ± 0.01mm = "L"

(for example TM-31-1.4-8.5 "EL")

Contact sales@electracool.com for a quotation

Advanced Thermoelectric, PO Box 1003, White River, VT 05001
toll-free 1-866-665-5434 (603) 888-2467 sales@electracool.com

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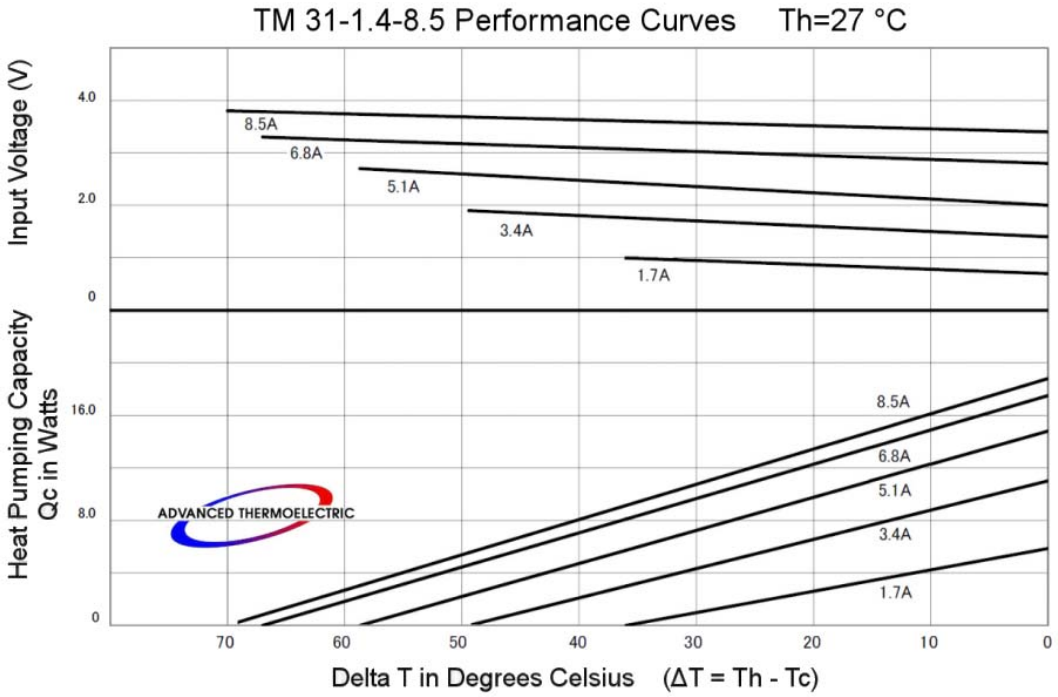
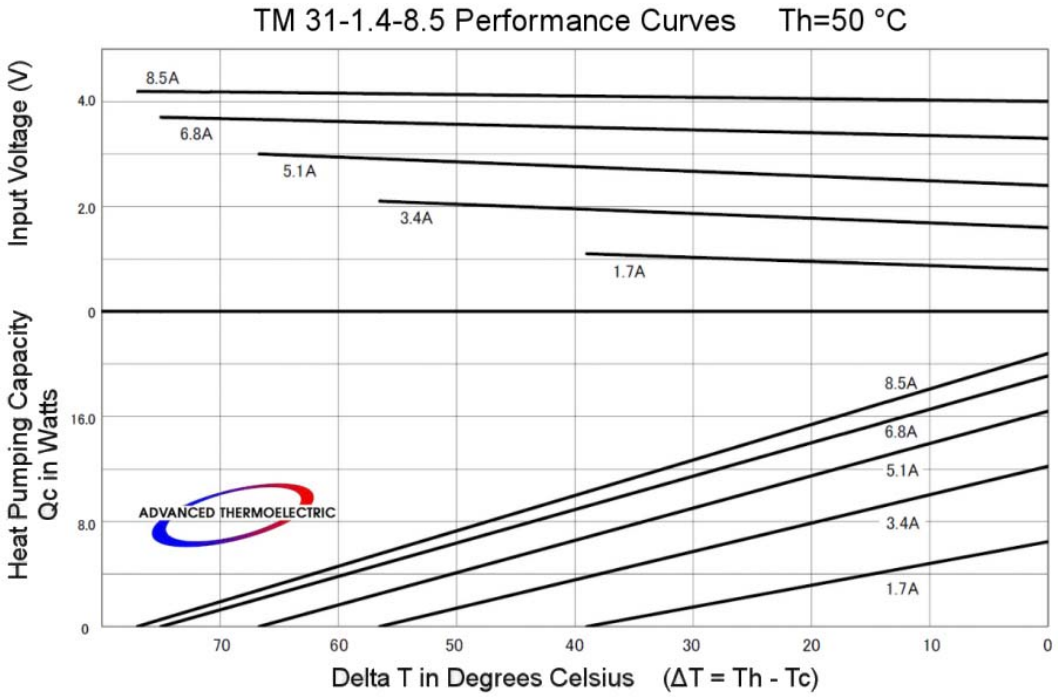
Thermoelectric cooling Module





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