



ROITHNER LASERTECHNIK GmbH

WIEDNER HAUPTSTRASSE 76
TEL. +43 1 586 52 43 -O. FAX. -44

1040 VIENNA AUSTRIA
OFFICE@ROITHNER-LASER.COM



TEC1-12705T125

- Thermo-Electric Cooling Element
- Q_{\max} : 46.4 W
- 40 x 40 x 4.0 mm
- Ceramic Plates
- RoHS Compliant



Description

TEC1-12705T125 is a **1-stage** thermo-electric cooling (**TEC**) element, consisting of **127 couples**, with a maximum cooling capacity of **46.4 W**, and max. operating temperature of **80 °C**. It features ceramic plates with silicone sealant and heat resistant wires. Variants with without sealant or with epoxy sealant are available on request.

Specifications ($T_H = 27^\circ\text{C}$)

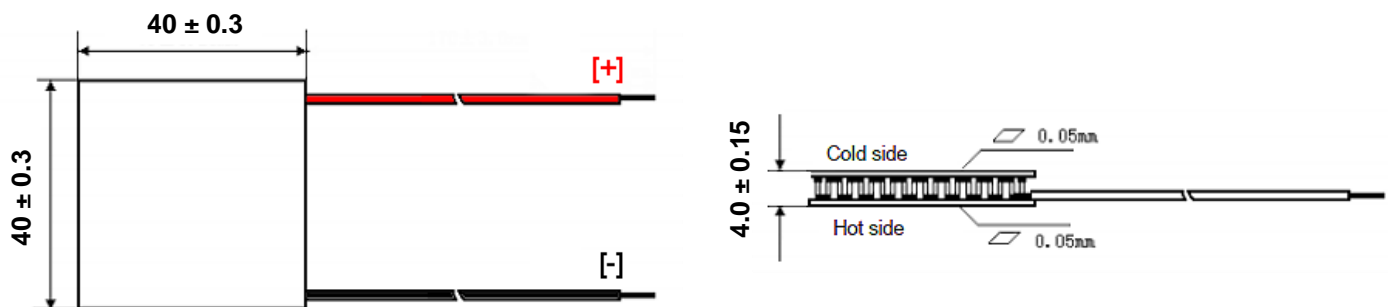
Parameter	Symbol	Value*	Unit
Maximum Current [ΔT_{\max}]	I_{\max}	5.0	A
Maximum Voltage [ΔT_{\max}]	U_{\max}	15.4	V
Internal Resistance [$T_H = 27^\circ\text{C}$]	R	2.51	Ω
Maximum Cooling Capacity [$I_{\max}, V_{\max}, \Delta T = 0^\circ\text{C}$]	Q_{\max}	46.4	W
Maximum Temperature Difference [$I_{\max}, V_{\max}, Q = 0 \text{ W}$]	ΔT_{\max}	67	$^\circ\text{C}$
Operating Temperature Range	$T_{\min} - T_{\max}$	- 50 ... + 80**	$^\circ\text{C}$
Solder Melting Point	T_{sol}	138***	$^\circ\text{C}$
Maximum Recommended Plate Pressure	P_{PLT}	98.0	N/cm ²
Dimensions		40 x 40 x 4.0	mm
Length of Leads [20 AWG]		~ 150	mm

* Tolerance $\pm 10\%$

** T_{MAX} of 150°C and 200°C optionally available

*** T_{SOL} of 238°C optionally available

Outline Dimensions



All dimensions in mm



Performance Characteristics ($T_H = 27^\circ\text{C}$)

