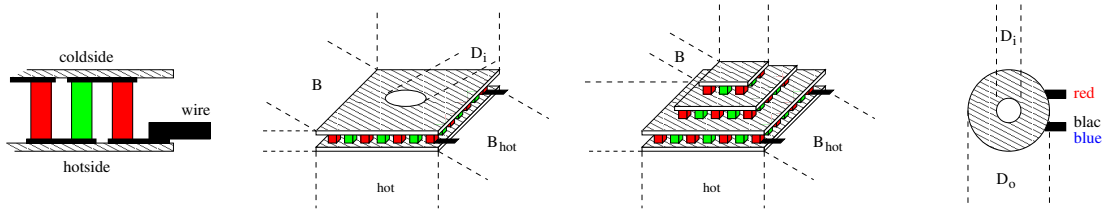
EURECA Messtechnik GmbH

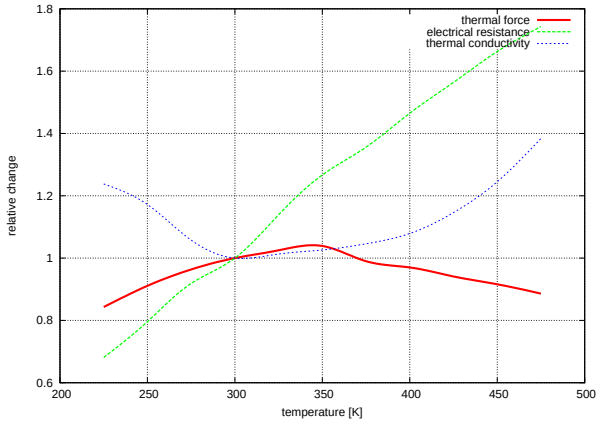
TEC1R-40-40-4.7-92/78

industrial peltier element with centered hole



thermal and electrical data:

thermal force:	α_{300K}	0.0516	$\frac{V}{K}$
resistance:	ρ_{300K}	1.51	Ω
thermal conductivity:	γ_{300K}	0.680	$\frac{W}{K}$



available maximum operating temperatures:	T_{max}	$80, 120, 150(nonROHS!), 225\ ^\circ C$
typical tolerances:		$\pm 5\,\%$

mechanical data:

size of cold side:	$L \times B \times H$	$40.0 \times 40.0 \times 3.40\,mm$
size of hot side:	$L_{hot} \times B_{hot}$	$40.0 \times 40.0\,mm$
hole:	$\emptyset_i$	$4.70\,mm$
height tolerance:	ΔH	$\pm 0.25\,mm$
length and width tolerances:	ΔL and ΔB	$+1.0/-0.5\,mm$
weight:	m	$26\,g$
ceramic plates:	BK-100 (grey), BK-96 (white) or AlN (opaque)	
location of production:	Russia	

experimental data:

typical values at:		$T_h = 50\,^\circ C$:	$T_h = 300\,K$:
maximum cooling power:	Q_{max}	$91.8\,W$	$79.1\,W$
at $\Delta T = 0$ and	$I_{Q_{max}}$	$11.0\,A$	$10.2\,A$
maximum temperature difference:	ΔT_{max}	$77.8\,K$	$69.0\,K$
at $Q = 0$ and	$I_{\Delta T_{max}}$	$8.4\,A$	$7.9\,A$
	U_{max}	$16.7\,V$	$15.5\,V$

order information:

TEC1R-40-40-4.7-92/78-B: max. 80°C
TEC1R-40-40-4.7-92/78-C: max. 120°C
TEC1R-40-40-4.7-92/78-D: max. 150°C
TEC1R-40-40-4.7-92/78-G: max. 200°C

TEC1R-40-40-4.7-92/78-BS: sealed, max. 80°C
TEC1R-40-40-4.7-92/78-CS: sealed, max. 120°C
TEC1R-40-40-4.7-92/78-DS: sealed, max. 150°C
TEC1R-40-40-4.7-92/78-GS: sealed, max. 200°C