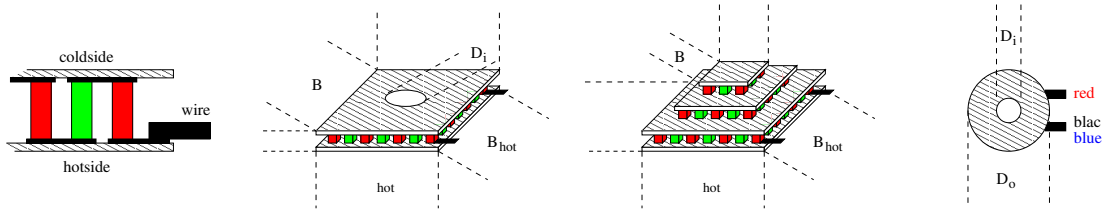
EURECA Messtechnik GmbH

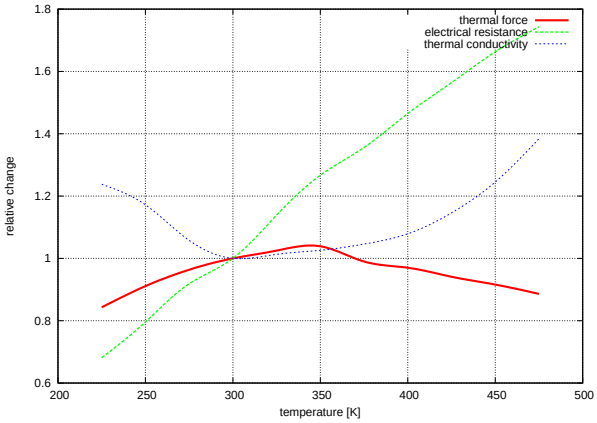
TEC1S-30-30-37/79

industrial standard peltier element



thermal and electrical data:

thermal force:	α_{300K}	0.0130 $\frac{V}{K}$
resistance:	ρ_{300K}	0.241 Ω
thermal conductivity:	γ_{300K}	0.265 $\frac{W}{K}$



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

mechanical data:

size of cold side:	$L \times B \times H$	$30.0 \times 30.0 \times 4.00\,mm$
size of hot side:	$L_{hot} \times B_{hot}$	$30.0 \times 30.0\,mm$
height tolerance:	ΔH	$\pm 0.25\,mm$
length and width tolerances:	ΔL and ΔB	$+1.0/-0.5\,mm$
weight:	m	$17\,g$
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}	$36.6\,W$	$31.5\,W$
at $\Delta T = 0$ and	$I_{Q_{max}}$	$17.4\,A$	$16.2\,A$
maximum temperature difference:	ΔT_{max}	$78.9\,K$	$70.0\,K$
at $Q = 0$ and	$I_{\Delta T_{max}}$	$13.2\,A$	$12.4\,A$
	U_{max}	$4.2\,V$	$3.9\,V$

order information:

TEC1S-30-30-37/79-B: max. 80°C	TEC1S-30-30-37/79-BS: sealed, max. 80°C
TEC1S-30-30-37/79-C: max. 120°C	TEC1S-30-30-37/79-CS: sealed, max. 120°C
TEC1S-30-30-37/79-D: max. 150°C	TEC1S-30-30-37/79-DS: sealed, max. 150°C
TEC1S-30-30-37/79-G: max. 200°C	TEC1S-30-30-37/79-GS: sealed, max. 200°C