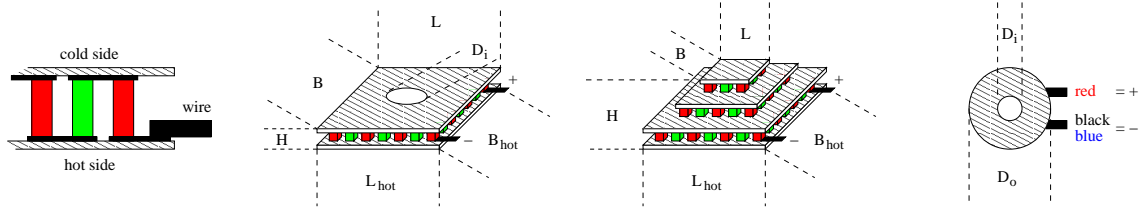


# TEC1S-23-23-12/79

## industrial standard peltier element



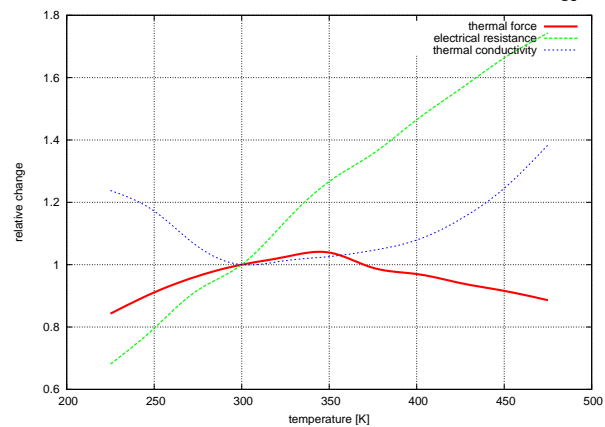
### thermal and electrical data:

thermal force:

resistance:

thermal conductivity:

$\alpha_{300K}$	0.0293	$\frac{V}{K}$
$\rho_{300K}$	3.60	$\Omega$
$\gamma_{300K}$	0.0900	$\frac{W}{K}$



available maximum operating temperatures:  $T_{max}$  80, 120, 150(non-ROHS!), 200 °C  
 typical tolerances:  $\pm 5\%$

### mechanical data:

size of cold side:

$$L \times B \times H \quad 23.0 \times 23.0 \times 4.80 \text{ mm}$$

size of hot side:

$$L_{hot} \times B_{hot} \quad 23.0 \times 23.0 \text{ mm}$$

height tolerance:

$$\Delta H \quad \pm 0.25 \text{ mm}$$

length and width tolerances:

$$\Delta L \text{ and } \Delta B \quad +0.5 / -0.2 \text{ mm}$$

weight:

$$m \quad 12 \text{ g}$$

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:	$Q_{max}$	12.4 W	10.7 W
	at $\Delta T = 0$ and $I_{Q_{max}}$	2.6 A	2.4 A
maximum temperature difference:	$\Delta T_{max}$	79.0 K	70.0 K
	at $Q = 0$ and $I_{\Delta T_{max}}$	2.0 A	1.9 A
	$U_{max}$	9.5 V	8.8 V

### order information:

TEC1S-23-23-12/79-B: max. 80°C  
 TEC1S-23-23-12/79-C: max. 120°C  
 TEC1S-23-23-12/79-D: max. 150°C  
 TEC1S-23-23-12/79-G: max. 200°C

TEC1S-23-23-12/79-BS: sealed, max. 80°C  
 TEC1S-23-23-12/79-CS: sealed, max. 120°C  
 TEC1S-23-23-12/79-DS: sealed, max. 150°C  
 TEC1S-23-23-12/79-GS: sealed, max. 200°C