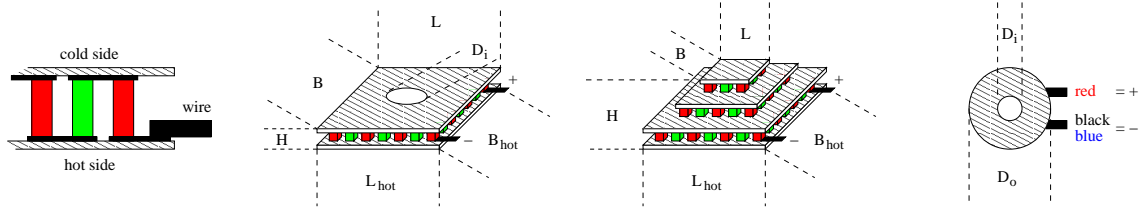


# TEC1H-40-40-44/80

## industrial high power peltier element



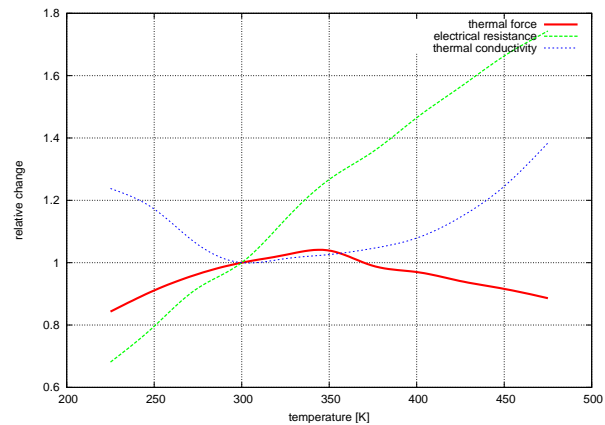
### thermal and electrical data:

thermal force:

resistance:

thermal conductivity:

|                 |        |               |
|-----------------|--------|---------------|
| $\alpha_{300K}$ | 0.0538 | $\frac{V}{K}$ |
| $\rho_{300K}$   | 3.41   | $\Omega$      |
| $\gamma_{300K}$ | 0.313  | $\frac{W}{K}$ |



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

### mechanical data:

size of cold side:

$$L \times B \times H \quad 40.0 \times 40.0 \times 3.60 \text{ mm}$$

size of hot side:

$$L_{hot} \times B_{hot} \quad 40.0 \times 40.0 \text{ mm}$$

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:

$$m \quad 27 \text{ g}$$

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:          | $Q_{max}$                           | 44.3 W              | 38.2 W         |
|                                 | at $\Delta T = 0$ and $I_{Q_{max}}$ | 5.1 A               | 4.7 A          |
| maximum temperature difference: | $\Delta T_{max}$                    | 80.0 K              | 71.0 K         |
|                                 | at $Q = 0$ and $I_{\Delta T_{max}}$ | 3.8 A               | 3.6 A          |
|                                 | $U_{max}$                           | 17.4 V              | 16.1 V         |

### order information:

TEC1H-40-40-44/80-B: max. 80°C  
 TEC1H-40-40-44/80-C: max. 120°C  
 TEC1H-40-40-44/80-D: max. 150°C  
 TEC1H-40-40-44/80-G: max. 200°C

TEC1H-40-40-44/80-BS: sealed, max. 80°C  
 TEC1H-40-40-44/80-CS: sealed, max. 120°C  
 TEC1H-40-40-44/80-DS: sealed, max. 150°C  
 TEC1H-40-40-44/80-GS: sealed, max. 200°C