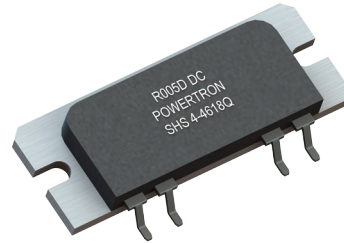


FEATURES

- Resistances from 0.005Ohm to 50Ohms
- Power Rating to 50Watt
- Resistance Tolerances to $\pm 0.1\%$
- TCR to $\pm 2\text{ppm/K}$
- Very Low Inductance



RoHS*
COMPLIANT

TABLE 1 – SPECIFICATIONS	
TYPE	
SHS 4-4618Q	
Resistance Range	0.005 to 50 Ohms
Power Rating	Free air 70°C
	With heatsink
Tolerances	0.1% / 0.25% / 0.5% / 1% / 2% / 5%
Thermal Resistance	1.6 K/W
Stability (1000h)	0.1% / 0.2% / 0.5% (depends on stress)
Temperature Coefficient (R > 0R100) Standard (N) Option (M) Option (L) upon request for selected values	$\pm 10\text{ppm/K}$ (20 to 60°C) $\pm 5\text{ppm/K}$ (20 to 60°C) $\pm 2\text{ppm/K}$ (20 to 60°C) other specifications upon request
Voltage Proof	500 VDC
Maximum Current	150 A
Thermal EMF	< 1 $\mu\text{V/K}$
Operating Temperature Range	-40 to 130 °C
Resistor Material	CuMnSn-Foil
Substrate	Anodized aluminium
Housing	Epoxy
Connector Material	Cu / tinned
Terminals	4 (standard contact K)
Max. Torque	1 Nm

ORDERING INFORMATION
Part Number - Resistance - Contact - Tolerance - TCR
SHS 4-4618Q 0R050 K 1% N

FIGURE 1 – TEMPERATURE COEFFICIENT

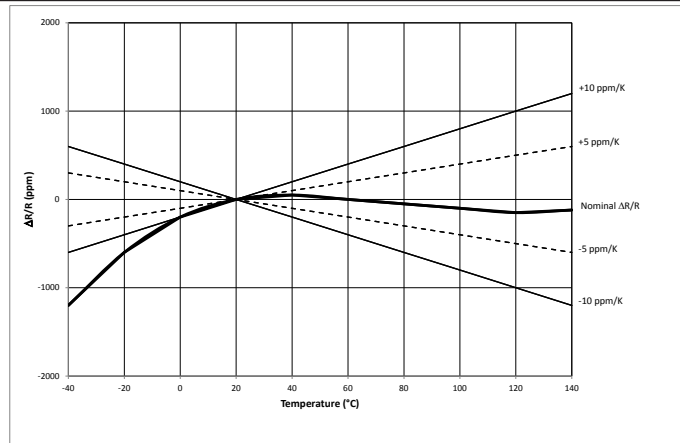
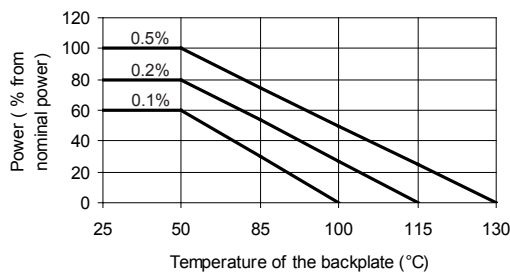


FIGURE 2 – DERATING



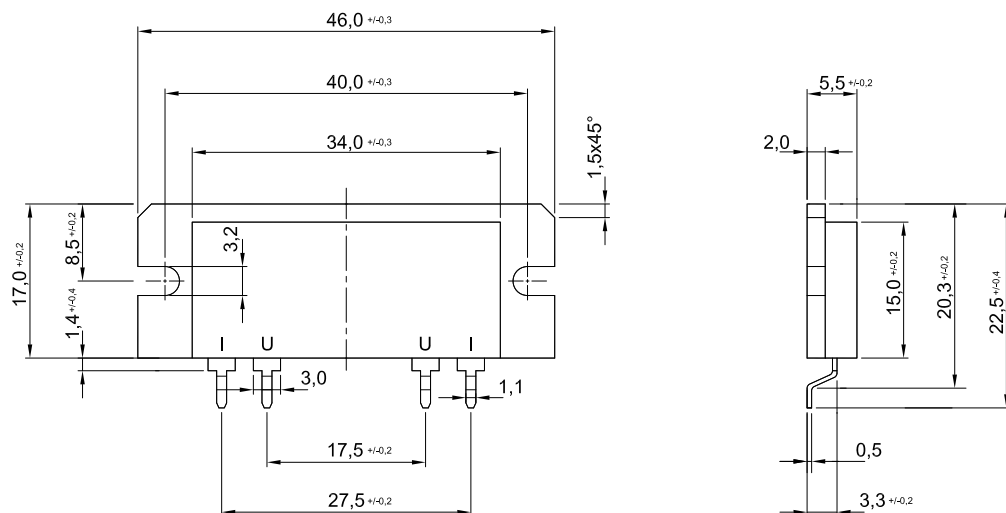
Power Rating Notes -

The SHS Series Resistors must be attached to a suitable heat-sink. The maximum internal resistor temperature is 130°C. To specify an appropriate heat-sink use the following formula :

$$R_{0H} = \frac{T_{MAX} - (P \times R_{0R}) - T_A}{P}$$

Where: R_{0H} = Thermal Resistance of Heatsink (K/W)
 R_{0R} = Thermal Resistance of Resistor (K/W)
 T_{MAX} = Maximum Temperature of Resistor
 T_A = Ambient Temperature of Heatsink (°C)
 P = Power Through Resistor (W)

FIGURE 3 – DIMENSIONS in mm





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