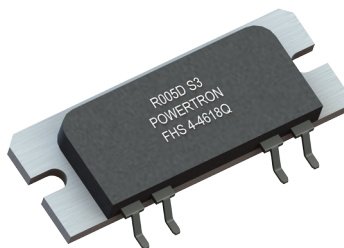


FEATURES

- Resistances from 0.001Ohm to 100Ohms
- Power Rating to 50Watt
- Resistance Tolerances to $\pm 0.1\%$
- TCR to $\pm 30\text{ppm/K}$
- Very Low Inductance



Pb-free
Available
RoHS*
COMPLIANT

TABLE 1 – SPECIFICATIONS

TYPE		FHS 4-4618Q
Resistance Range		0.001 to 100 Ohms
Power Rating	Free air 70°C	3W
	With heatsink	50W
Tolerances from 0R001		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 Standard (Q) R >0R100		$\pm 25\text{ppm/K}$ (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		CuNiMn-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

FHS 4-4618Q 0R050 K 1% Q

FIGURE 1 – TEMPERATURE COEFFICIENT

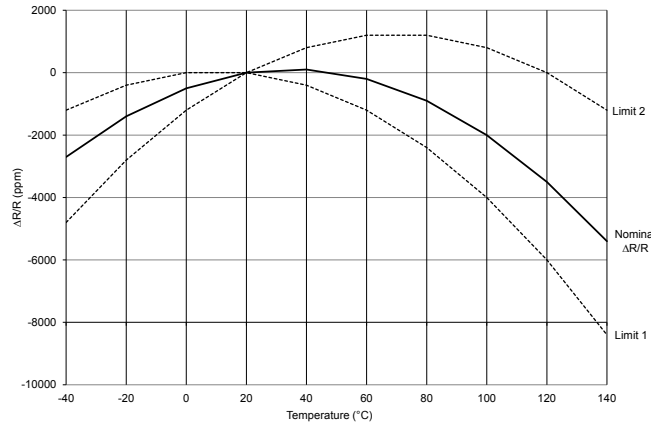
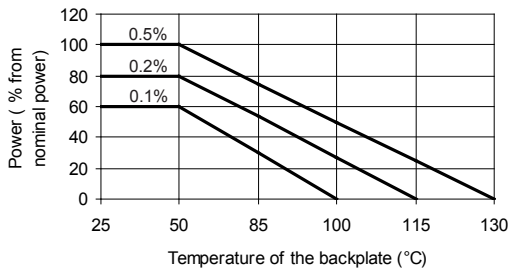


FIGURE 2 – DERATING



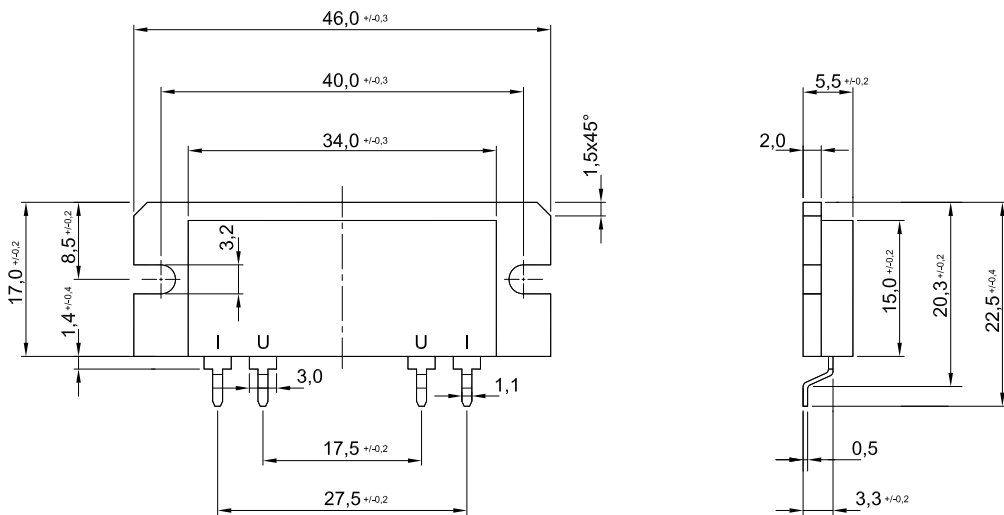
Power Rating Notes -

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

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

Where: $R_{\theta H}$ = Thermal Resistance of Heatsink (K/W)
 $R_{\theta R}$ = 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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