

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
- Load Stability to 0.1%



RoHS*
COMPLIANT

TABLE 1 – SPECIFICATIONS		TYPE	SHR 4-4618
Resistance Range			0.005 to 50 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 (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
Max. Torque			1 Nm

ORDERING INFORMATION
Part Number - Resistance - Contact - Tolerance - TCR
SHR 4-4618 0R954 A 0.1% L

FIGURE 1 – TEMPERATURE COEFFICIENT

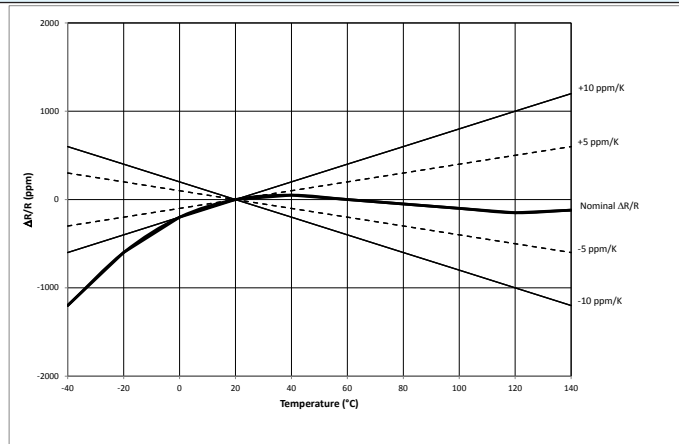
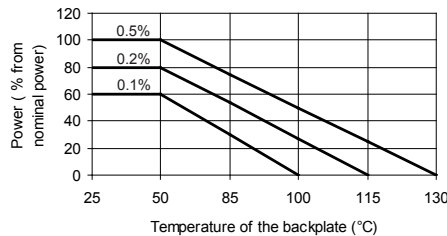


FIGURE 2 – DERATING



Power Rating Notes -

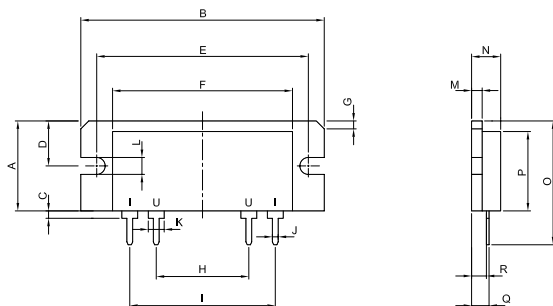
The SHR Series Resistors must be attached to a suitable heat-sink. The maximum internal resistor temperature is 130°C. To specify an appropriate heatsink use the following formula :

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

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 (inches)

SHR 4-4618



Dimension	A-contact	K-contact
A ±0.1 (±0.004)	17.00 (0.67)	
B ±0.3 (±0.012)	46.00 (1.81)	
C ±0.4 (±0.016)	1.40 (0.06)	
D ±0.2 (±0.008)	8.50 (0.33)	
E ±0.3 (±0.012)	40.00 (1.57)	
F ±0.3 (±0.012)	34.00 (1.34)	
G ±0.1 (±0.004)	1.5x45° (0.06x45°)	
H ±0.2 (±0.008)	17.50 (0.69)	
I ±0.2 (±0.008)	27.50 (1.08)	
J ±0.1 (±0.004)	1.50 (0.06)	1.10 (0.04)
K ±0.1 (±0.004)	3.00 (0.12)	
L ±0.1 (±0.004)	3.20 (0.13)	
M ±0.1 (±0.004)	2.00 (0.08)	
N ±0.2 (±0.008)	max.5.5 (0.22)	
O ±0.4 (±0.016)	23.40 (0.92)	
P ±0.2 (±0.008)	15.00 (0.59)	
Q ±0.3 (±0.012)	3.60 (0.14)	3.30 (0.13)
R ±0.3 (±0.012)	2.80 (0.11)	



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