Type SQF Series

Key Features

- Overheat fusing
- Various current ratings
- Up to 2.4 Watts continuous power
- 2 sizes
- Values up to 50K
- Suited to overloading and to overheating

As the Thermal fuses are incorporated, these cement filled resistors respond quickly to overloading as well as to external overheating. The SQF series also provides outstanding features against surges, and are therefore suitable for the preventing of inrush current for switching regulators. Obvious economic advantages can be achieved by not having to specify a separate thermal fuse.

Characteristics - Electrical

Resistive Element:	SQF5 R10 - 150R SQF7 R10 - 430R	Wirewound
	SQF5 151R - 50K SQF7 431R - 50K	Metal Film
Tolerance:	—	J - +/-%
Temperature Coefficience of Resistance (TCR):	<1R0	+/-600PPM
	1R0 - 50K	+/-300PPM
Operating Temp Range:	—	-25 ~ 125 deg.C
Short Time Overload:	10 x Rated Power for 5 seconds	+/-2%
Voltage Withstand:	1,000V AC 1 Minute	No change
Insulation Resistance:	500V Megger	1000M Ohm
Temperature Cycle:	-25 ~ +125 deg. C for 5 cycles	+/-1%
Load Life:	25 Deg. C on off cycle for 1000 Hours	+/-5%
Moisture-Proof Load Life:	40 Deg. C. 90-95% humidity 500hours +24/-0	+/-5%
Incombustability:	16 X rated Wattage for 5 Minutes	No Flame

Characteristics - Electrical

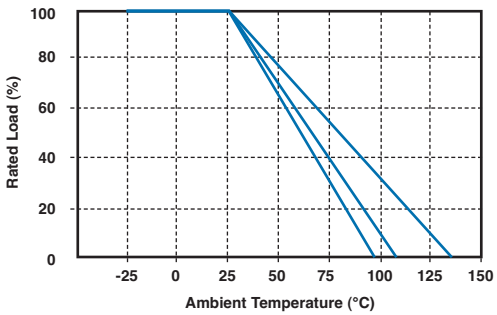
Type	Resistance Range	Tolerance	Fuse Type (°C)Rated		Rated Wattage (Continuous)	Maximum Wattage (Momentary)	Maximum Working Voltage	Working Current
			Rated Temp.	Cut Off Temp.				
SQF5	R10 - 50K	+/-5%	145	140 +/-2	1.6W	5W	250V	3A
SQF5			145	140 +/-2	1.6W	5W	250V	5A
SQF7			145	140 +/-2	2.2W	7W	250V	3A
SQF7			145	140 +/-2	2.2W	7W	250V	5A
SQF7			132	131+3/-4	2.2W	7W	250V	10A
SQF7			185	181+/-2	2.4W	7W	250V	10A

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

Type SQF Series

Derating Curve



Rated Power

Rated Power is the value of Max load voltage specified at the ambient temperature of 25°C, and shall meet the functions of electrical and mechanical performance. When the ambient temperature surpasses the above mentioned temperature, the value declines as per the Derating Curve.

Rated Voltage

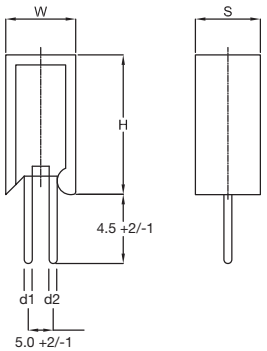
It is calculated through the following formula:

$E = \sqrt{PXR}$

where E: rated voltage (V)
P: rated power (W)
R: total nominal resistance (Ω)

However, in case the voltage calculated exceeeds the maximum load voltage, such the maximum load voltage shall be regarded as its rated voltage, means whichever less.

Dimensions



Type	W ± 1	S ± 1	H ± 1.5	D1 ±0.1	D2 ±0.1
SQF5	13	9	25	0.8	3A:0.6 5A:1.0 10A:1.0
SQF7	13	9	39	0.8	

How to Order

SQF5	50R	J	145	5
Common Part	Resistance Value	Tolerance	Fuse Temperature	Max Working Current
SQF5 SQF7	0.1 Ohm = R10 1.0 Ohm = 1R0 1000 Ohms = 1K0 50,000Ohms = 50K	J = +/-5%	See table above	See Table Above 3 = 3A 5 = 5A 10 = 10A