

# IS Series

## Ultra Low Profile Power Resistors



HEAT SINKABLE



### FEATURES

- Heatsinkable
- Low profile
- High power
- Pulse handling capability
- Non-flammable
- Low inductances
- Available with fast-on terminals or wire leads
- Rugged construction
- Ultra low profile thick-film on steel
- 175W to 270W sizes
- Single fixing heatsink mountable

### USES

- Braking resistors
- In-rush current limiter
- Bleeder resistor
- Power switching
- Soft charging

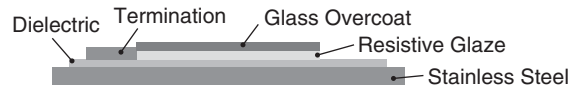
### THIS PRODUCT IS DESIGNED FOR USE WITH PROPER HEATSINKING.

Maximum base plate temperature of the resistor must be monitored and kept within specified limits to establish the power rating. Best technique is to attach a thermocouple to the side of the base plate of the resistor.

### SERIES SPECIFICATIONS

Type	Power Rating (watts)	Resistance Range ( $\Omega$ )	Tolerance
IS175	175	5 $\Omega$ to 10K $\Omega$	10%, 20%
IS200	200	5 $\Omega$ to 10K $\Omega$	10%, 20%
IS250	250	5 $\Omega$ to 10K $\Omega$	10%, 20%
IS270	270	5 $\Omega$ to 10K $\Omega$	10%, 20%

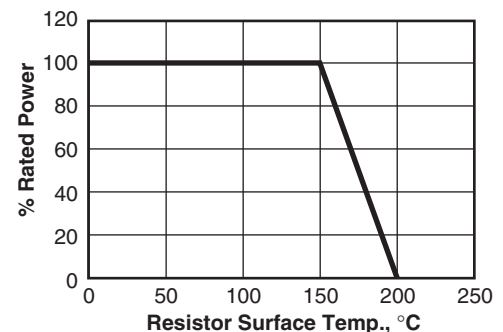
### Construction



### CHARACTERISTICS

TCR	<250ppm (surface temp less than 150°C)
Hot spot surface temperature	200°C max.
Working voltage	Not to exceed 300V
Over-voltage rating	5X rated power for up to for up to 1 second
Resistive element	Thick Film
Derating	element surface temp. at 100% to 0% power at 200°C surface temp.
Power rating	dependent on mounting and heat-sink thermal capacity
Maximum element temperature	365°C
Pulsed load at full pulse power rating 1,000 cycles	Max. 1% $\Delta$ R; (see Fig 1) Mounted on a 0.06°C/W heatsink with forced air cooling, air temperature 25°C (ref AH32430 12" long)

### Derating



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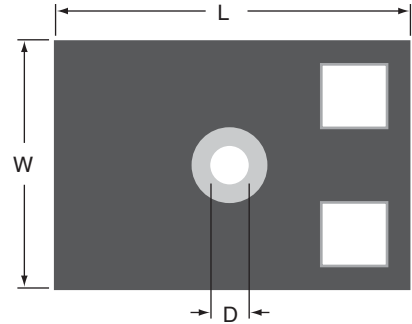
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### DIMENSIONS

(in/mm)

Thickness: 0.04 in. / 0.9mm ±.1

Type	Wattage	L ±0.1mm	W ±0.1mm	ØD nom.	Wt. nom (oz/g)
IS175	175	1.94/49.30	1.41/35.90	0.13/3.20	0.44/12.60
IS200	200	2.40/61.00	1.60/40.60	0.21/5.30	0.60/17.10
IS250	250	4.00/101.60	2.76/70.00	0.21/5.30	1.78/50.80
IS270	270	4.80/122.00	2.76/70.00	0.21/5.30	2.12/60.70



### TERMINATION OPTIONS

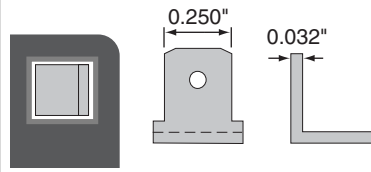
Solder pad only  
SnAg (96S)



Flying leads



Push-on connectors



### ORDERING INFORMATION

				Tolerance
				K = 10% RoHS
				M = 20% Compliant
<b>IS 200 C 47 R K E</b>				
<b>Series</b>	<b>Wattage</b>	<b>Termination</b>	<b>Resistance</b>	
Insulated	175	A = Tinned pad	3 digits	
Steel	200	B = Soldered lead	47R = 47Ω	
	250	C = Fast on terminal		
	270			