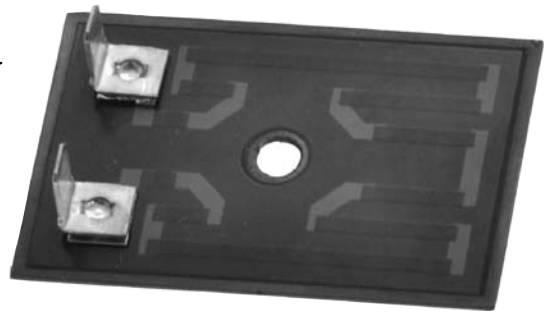


# IS Series

## Ultra Low Profile Power Resistors



### 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

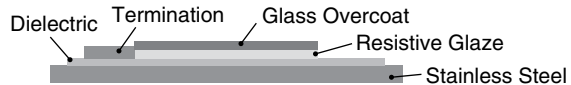
### USES

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

### 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%

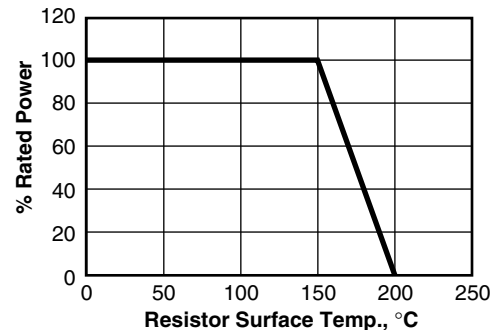
### Construction



### CHARACTERISTICS

<b>TCR</b>	<250ppm (surface temp less than 150°C)
<b>Maximum element temperature</b>	365°C
<b>Working voltage</b>	Not to exceed 300V
<b>Over-voltage rating</b>	5X rated power for up to for up to 1 second
<b>Resistive element</b>	Film
<b>Derating</b>	element surface temp. at 100% to 0% power at 200°C surface temp.
<b>Power rating</b>	dependent on mounting and heatsink thermal capacity
<b>Hot spot surface temperature</b>	200°C max.
<b>Pulsed load at full pulse power rating 1,000 cycles</b>	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)
<b>Solder</b>	Silver solder is recommended for IS Series resistors. Leaching of the silver in the termination will occur if non-silver solder is used. 60/40 tin-lead solders are not recommended for use with the IS Series product.
<b>Screw torque</b>	3.5 Nm

### Derating



**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.

(continued)

# IS Series

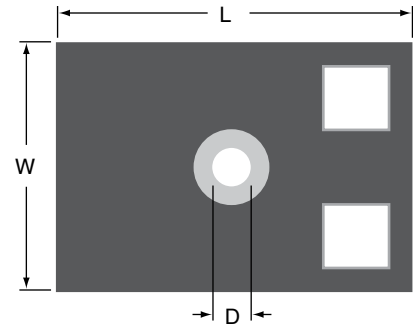
## Ultra Low Profile Power Resistors

### DIMENSIONS

(in/mm)

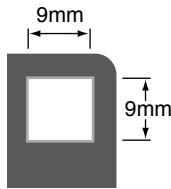
Thickness: 0.050 in. ±0.015 / 1.27mm

Type	Wattage	L ±0.2mm	W ±0.2mm	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

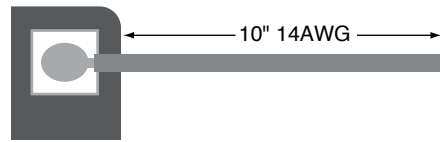


### TERMINATION OPTIONS

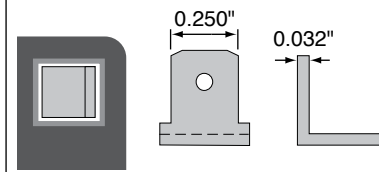
Solder pad only  
SnAg (96S)



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				