

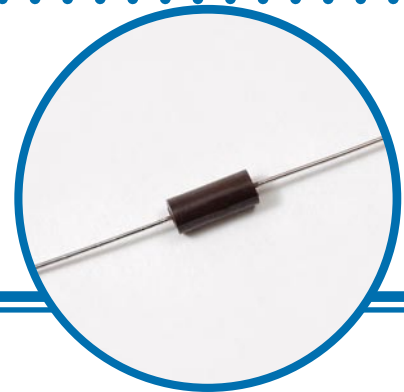
# Thick Film Semi-Precision Metal Glaze™ Power Resistors



IRC Wire and Film Technologies Division

## GS-3 Series

- Power rating of 3W @25°C; 2W @ 70°C
- Resistance range from 1Ω to 3MΩ
- Standard tolerances of ±1%, ±2%, ±5%
- Superior surge performance
- Effective as carbon composition replacement



## Specifications

Part Number	Power rating (Watts)	Resistance Range (Ohms)	Tolerance (±%)	TCR (±ppm/°C)	Maximum Operating Voltage (Volts)	Dielectric Withstanding Voltage (Volts)
GS-3	2.0 (@ 70°C) 3.0 (@ 25°C)	1.0 - 3M	1, 2, 5	50 (>10Ω) 100, 200 (≤ 10Ω)	1000	1000

## Environmental Performance

Test		Maximum ΔR Limits			
		MIL-R-26	MIL-R-10509-D	MIL-R-22684	GS-3
TCR	±ppm/°C	30	100	200	100/50
Load life	%ΔR	0.5	1.0	2.0	2.0
Short term overload	%ΔR	0.20	0.50	0.50	0.20
Moisture	%ΔR	0.20	1.50	1.50	0.40
Temperature cycling	%ΔR	0.20	0.50	-	0.20
Solder effect	%ΔR	-	0.50	0.50	0.20
Termination strength	%ΔR	0.10	0.20	0.50	0.10
Shock	%ΔR	0.10	0.50	0.50	0.10
Vibration	%ΔR	0.10	0.50	0.50	0.10
Operating temperature		-55°C to +175°C			

### General Note

IRC reserves the right to make changes in product specification without notice or liability. All information is subject to IRC's own data and is considered accurate at time of printing.

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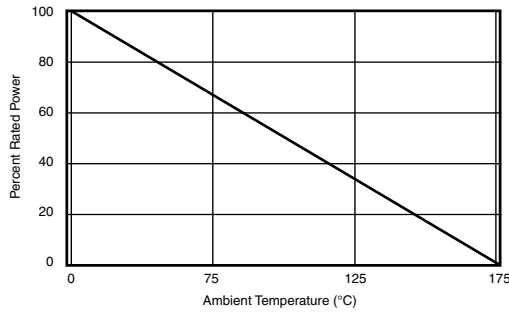


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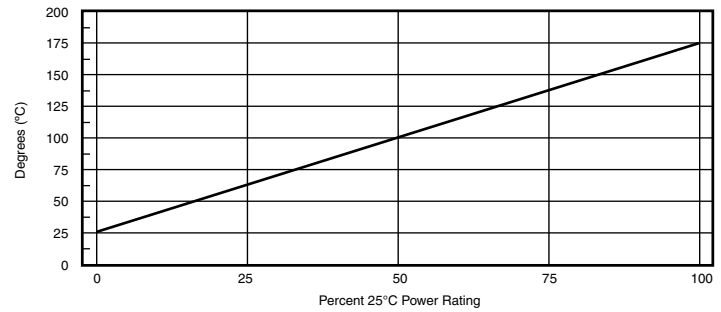
GS-3 Series Issue January 2007

# Performance Curves

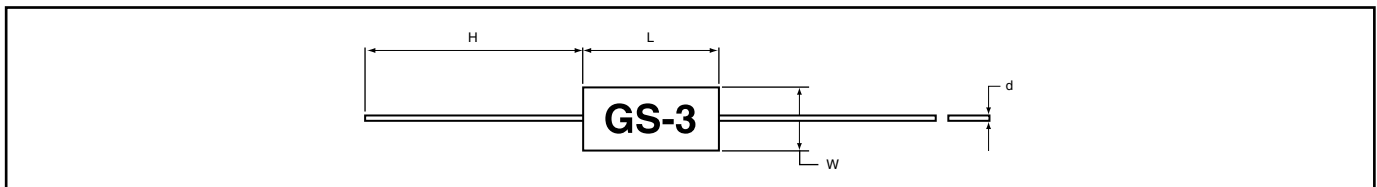
Derating Chart



Hot Spot Temperature +25°C Ambient



# Dimensions (Inches and mm)



TYPE	L	W	H	Ød
GS-3	0.515 ±0.010 (13.1 ±0.3)	0.225 ±0.008 (5.7 ±0.2)	1.50 ±0.125 (38.1 ±3.2)	0.032 ±0.002 (0.8128 ±0.05)

# Ordering Information

**Sample Part No.**      GS-3 100 1000 J      \_\_\_\_\_

**IRC Style** \_\_\_\_\_  
 GS = (Fixed Film Resistor  
 High Stability)

**Power Rating** \_\_\_\_\_  
 3 = 3W @ 25°C / 2W @ 70°C

**TCR Characteristics** \_\_\_\_\_  
 50 = ±50 ppm/°C  
 100 = ±100 ppm/°C  
 200 = ±200 ppm/°C  
 (available on values greater than 10 ohms)

**Resistance** \_\_\_\_\_  
 First three digits represent significant figures;  
 fourth digit is number of zeros.

**Tolerance** \_\_\_\_\_  
 F = ±1%, G = ±2%, J = ±5%

**RoHS Compliance** \_\_\_\_\_  
 = Sn/Pb terminations  
 LF = RoHS-compliant product

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