

# COMMERCIAL 1/8 WATT TO 2 WATT METAL FILM RESISTORS

## GP SERIES

### FEATURES

- Industry's lowest cost! Delivery from stock (see p. 4)
- Improved stability,  $\pm 0.2\%$   $\Delta R$  typ. load life
- Meet or exceed performance requirements of MIL-R-10509(RN), MIL-R-22684(RL), EIA RS-460
- Exceptionally wide resistance range: 10 $\Omega$  to 5.1 Meg standard, 1 $\Omega$  to 22.1 Meg $\Omega$  available.
- Wide TC range: 25, 50, 100, 200 PPM/ $^{\circ}C$
- Standard tolerances: 1%, 2%, (available to  $\pm 0.1\%$ )
- All sizes available on Tape & Reel
- Refer to Series GPS for miniature sizes
- **FLAME PROOF COATING AVAILABLE (SERIES FP)**

### DIMENSIONS

RCD Type	L $\pm .025$ [.7]*	D $\pm .024$ [.6]*	d $\pm .003$ [.08]	H (Min.)
GP50	.150 [3.8]	.064 [1.6]	.018 [.45]	1.06 [27]
GP55	.250 [6.4]	.090 [2.3]	.024 [.60]	1.06 [27]
GP60	.360 [9.1]	.132 [3.4]	.026 [.65]	1.06 [27]
GP65	.455 [11.5]	.177 [4.5]	.030 [.75]	1.06 [27]
GP70	.590 [15]	.195 [5.0]	.030 [.75]	1.06 [27]

\* Tolerance is  $\pm .032$  on GP60, GP65, and GP70.

### SPECIFICATIONS

STOCK ITEM	RCD TYPE	Wattage 70 $^{\circ}C$	Max Continuous Working Volt*	Dielectric Withstanding V	TCR (PPM/ $^{\circ}C$ )	RESISTANCE RANGE	MIL EQUIVALENTS <sup>1</sup> MIL-R-10509 / 22684
	GP50	0.125	200V	350V	25,50,100	10 $\Omega$ to 1.0 Meg	RN50
GP55	0.25	250V	500V	100,200	1 $\Omega$ to 5.1 Meg**	RN55 RL07	
				25,50	10 $\Omega$ to 1.0 Meg		
GP60	0.50	350V	500V	100,200	10 $\Omega$ to 5.1 Meg	RN60 RL20	
				25,50	10 $\Omega$ to 1.0 Meg		
GP65	1.0	400V	700V	100,200	10 $\Omega$ to 5.1 Meg	RN65 RL32	
				25,50	51 $\Omega$ to 1.0 Meg		
GP70	2.0	500V	700V	100,200	10 $\Omega$ to 1.0 Meg	RN70 RL42	
				25,50	51 $\Omega$ to 1.0 Meg		

\* Maximum working voltage determined by  $E = \sqrt{PR}$ , E should not exceed value listed in column above

\*\* GP55 available up to 22.1 Meg $\Omega$  with relaxed performance characteristics

<sup>1</sup> Military part numbers are given for reference only and do not imply qualification or exact interchangeability.

### PERFORMANCE CHARACTERISTICS\*

ENVIRONMENTAL TEST	RCD MAX $\Delta R$	MIL-R-10509
Dielectric Withstanding	0.25%	0.5%
Moisture Resistance	0.5%	1.5%
Short Time Overload	0.25%	0.5%
Load Life	0.5%	1.0%
Temperature Cycling	0.25%	0.5%
Shock, Vibration	0.2%	0.5%
Insulation Resistance	10,000 M $\Omega$	10,000 M $\Omega$

\* Total resistance change  $+\Delta R\%$   $+0.05\%$  Characteristics given are for resistance range 10 $\Omega$  to 1.0 Meg. Consult factory for performance levels outside of this range

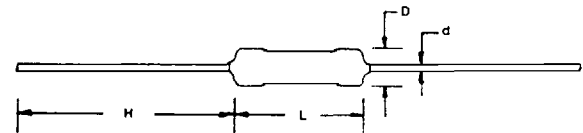
### Precision performance, economical cost!

RCD GP Series general purpose color banded metal film resistors are designed to provide MIL performance and reliability, at significant cost savings.

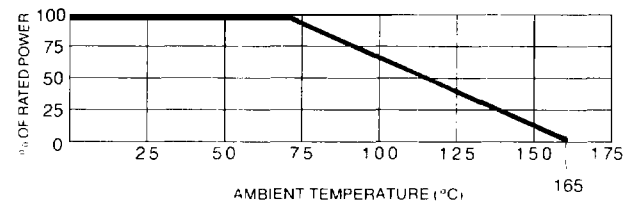
Substantially improved performance over industry standard is attained by stringent process controls and highest grade materials. The high-grade, thermal conductive ceramic core allows increased stability and overload dissipation. The lead termination is welded for increased durability, special electroplate solder coating is standard for faultless soldering even after extended storage. Request Engineering Bulletin R-8 for detailed performance data and test methods on GP Series.

Low prices result from manufacturing facility built exclusively for totally automated production of film resistors.

See GPS series for new miniature sizes!



### DERATING



### HOW TO ORDER:

