

PRECISION METAL FILM RESISTORS



GP SERIES



- Meets requirements of MIL-R-10509
- 10 ohm - 10 megohm resistance range
- Flame-retardant coatings are standard
- Temperature coefficients from ± 25 to ± 100 ppm/ $^{\circ}\text{C}$
- Resistance range tolerance of $\pm 0.1\%$ - 1%

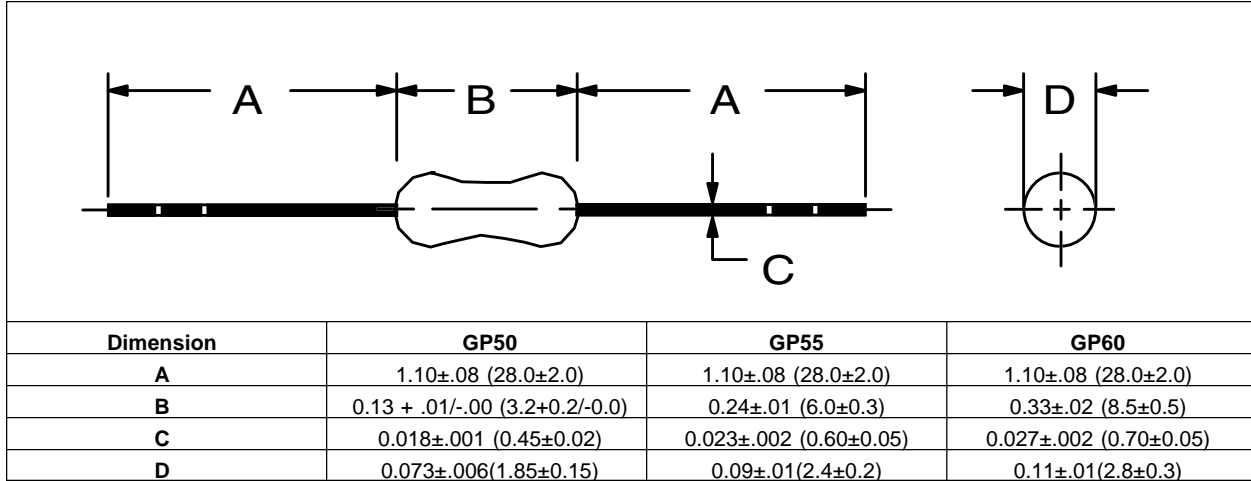
PERFORMANCE CHARACTERISTICS (TESTED PER MIL-STD-202):

IRC TYPE	IRC POWER RATING (watts)		MIL REFERENCE	MAXIMUM WORKING VOLTAGE	RESISTANCE TEMPERATURE COEFFICIENT (\pm ppm/ $^{\circ}\text{C}$)	TOLERANCE & RESISTANCE RANGE		
	@ 70 $^{\circ}\text{C}$	@ 125 $^{\circ}\text{C}$				+1%	$\pm 5\%$	± 0.25 and $\pm 0.1\%$
GP-50 (T0)	1/8	1/10	RN50	200	100	10 - 2.37 Meg	10 ohm - 499K ohm	100 ohm - 100K ohm
GP-50 (T2)	1/8	1/10	RN50	200	50	10 ohm - 1 Meg	10 ohm - 499K ohm	100 ohm - 100K ohm
GP-50 (T9)	1/8	1/10	RN50	200	25	49.9 ohm - 499K ohm	49.9 ohm - 499K ohm	100 ohm - 100 K ohm
GP-55 (T0)	1/4	1/8	RN55	250	100	10 ohm - 10 Meg	10 ohm - 499K ohm	30 ohm - 300K ohm
GP-55 (T2)	1/4	1/8	RN55	250	50	10 ohm - 4.99 Meg	10 ohm - 499K ohm	30 ohm - 300K ohm
GP-55 (T9)	1/4	1/8	RN55	250	25	30 ohm - 499K ohm	30 ohm - 499K ohm	30 ohm - 300K ohm
GP-60 (T0)	1/2	1/4	RN60	350	100	10 ohm - 10 Meg	10 ohm - 499K ohm	100 ohm - 100K ohm
GP-60 (T2)	1/2	1/4	RN60	350	50	10 ohm - 4.99 Meg	10 ohm - 499K ohm	100 ohm - 100K ohm
GP-60 (T9)	1/2	1/4	RN60	350	25	49.9 ohm - 499K ohm	49.9 ohm - 499K ohm	100 ohm - 100K ohm

ENVIRONMENTAL (% Δ R)	MIL-R-10509		Char. C	EIA RS-196 Class 1
	Typical	Char. D		
Moisture Resistance	± 0.5	± 1.5	± 0.5	± 1.5
Thermal Shock	± 0.25	± 0.5	± 0.25	-
Load Life @ 70 $^{\circ}\text{C}$ - 1000 hours	± 0.5	± 1.0	± 0.5	± 2.0
Shock and Vibration	± 0.25	± 0.5	± 0.25	-
Resistance to Soldering Heat	± 0.1	± 0.5	± 0.1	-
Terminal Strength	± 0.2	± 0.2	± 0.2	-
Dielectric Withstand Voltage	± 0.25	± 0.5	± 0.25	± 0.5
Short Time Overload	± 0.25	± 0.5	± 0.25	± 0.5
Operating Temperature Range	-55 $^{\circ}\text{C}$ to +165 $^{\circ}\text{C}$	-55 $^{\circ}\text{C}$ to +165 $^{\circ}\text{C}$	-55 $^{\circ}\text{C}$ to +165 $^{\circ}\text{C}$	
Maximum Pulse Voltage	GP50 400V, GP55 500V, GP60 600V			
Insulation Resistance	10,000 meg min.			
Voltage Coefficient	10ppm/V			

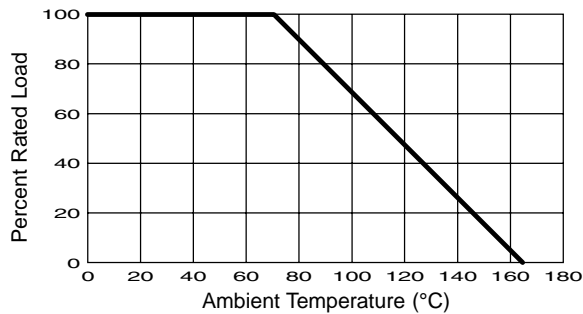
WIREWOUND AND FILM TECHNOLOGIES DIVISION

GP DIMENSIONS (Inches and (mm)):

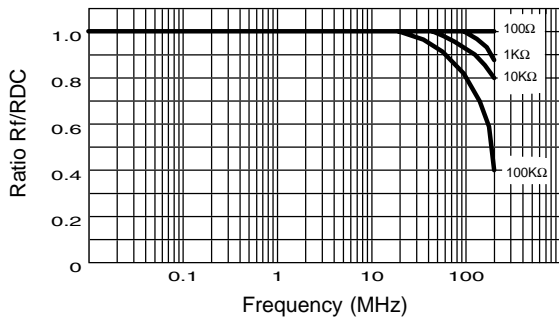


GP PERFORMANCE CURVES:

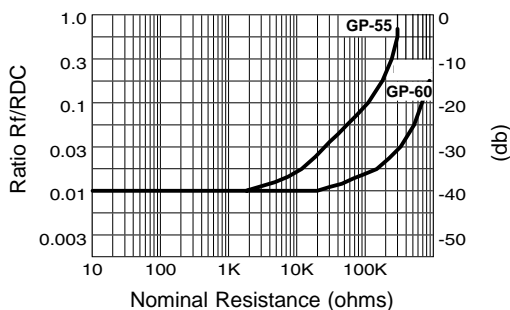
Derating Curve (Typical)



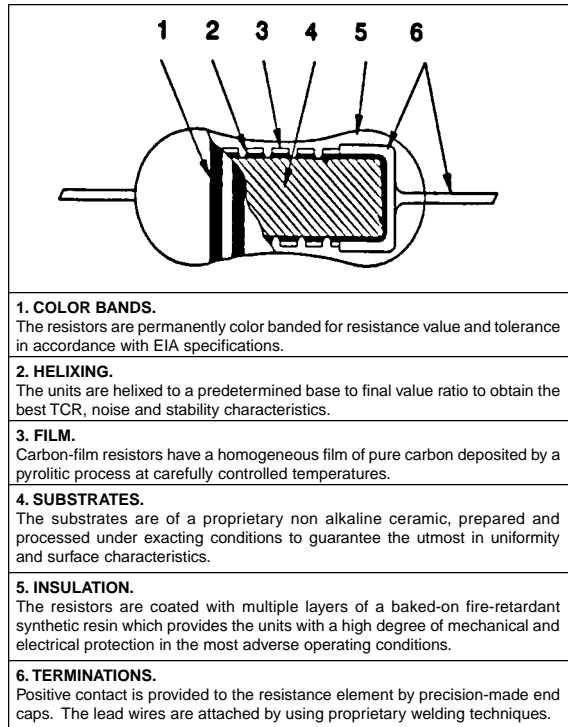
High-Frequency Characteristics (Typical)



Current Noise (Typical)

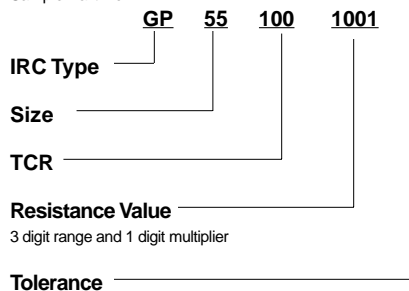


GP CONSTRUCTION:



HOW TO ORDER:

Sample Part No.:



F = 1%, D = .5%, C = .25%, B = .1%

Packaging: Bulk or Tape and Reel