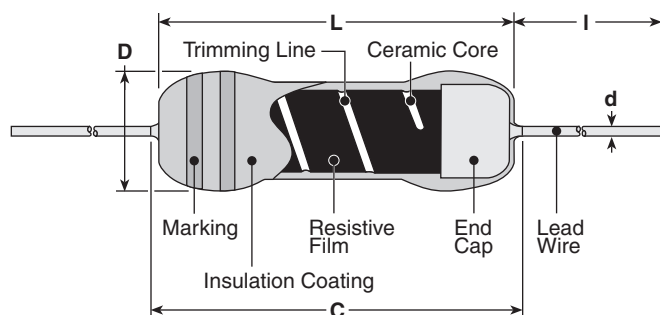




features

- Semi-precision metal film resistors
- Meets requirements of MIL-R-22684
- Suitable for automatic machine insertion
- MFS two times the power rating of the standard body type
- Marking: Blue-gray body color with color-coded bands

dimensions and construction



Type	Dimensions inches (mm)				
	L (ref.)	C (max.)	D	d	I
MFS1/4	.126 (3.2)	.133 (3.4)	.066 ^{+0.007} _{-.004} (1.7 ^{+0.2} _{-.01})	.018 (0.45)	1.18±.118 (30.0±3.0)
MF1/4	.248 (6.3)	.280 (7.1)	.091±.012 (2.3±0.3)	.024±.002 (0.6±0.05)	
MFS1/2	.248 (6.3)	.280 (7.1)	.091±.012 (2.3±0.3)	.024±.002 (0.6±0.05)	
MF1/2	.374 (9.5)	.437 (11.1)	.138±.016 (3.5±0.4)	.031±.002 (0.8±0.05)	1.50±.126 (38.1±3.2)
MF1	.610 (15.5)	.721 (18.3)	.217±.02 (5.5±0.5)	.031±.002 (0.8±0.05)	

ordering information

New Part #	MF	1/4	L	C	T52	R	R20	J
Type	MF MFS	Power Rating 1/4: 0.25mW 1/2: 0.50mW 1: 1W	T.C.R. E: ±25 C: ±50 D: ±100 L: ±200	Termination Material C: SnCu L: SnPb	Taping and Forming 1/4: T26, T52, VT, VTP, VTE, MT, M, U, M10, M25 1/2: T26, T52, VTP, VTE, M12.5, M15 1: T521	Packaging A: Ammo R: Reel	Nominal Resistance +2%: 2 significant figures + 1 multiplier +0.5%, +1%: 3 significant figures + 1 multiplier "R" indicates decimal on value <10Ω	Tolerance B: ±0.1% C: ±0.25% D: ±0.5% F: ±1% G: ±2% J: ±5%

For further information on packaging, please refer to Appendix C.

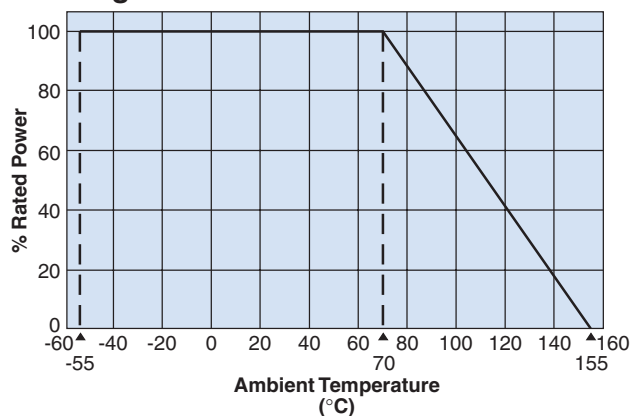
applications and ratings

Part Designation	Power Rating @ 70°C	Minimum Dielectric Withstanding Voltage	T.C.R. (ppm/°C)	Resistance Range (Ω)						Absolute Maximum Working Voltage	Absolute Maximum Overload Voltage	Operating Temperature Range
				(B±0.1%) E-96	(C±0.25%) E-96	(D±0.5%) E-24 E-96	(F±1.0%) E-24 E-96	(G±2.0%) E-24	(J±5.0%) E-24			
MFS1/4C	0.25W	300V	C: ±50	—	—	49.9 - 562k	10 - 1M	—	—	250V	300V	-55°C to +155°C
MFS1/4D			D: ±100	—	—	—	*1.02-10M	—	—			
MF1/4C	0.25W	500V	C: ±50	30.1 - 750K	30.1 - 1.0M	10 - 2.21M	10 - 2.21M	0.20 - 33M	0.20 - 33M	250V	500V	
MF1/4D			D: ±100	24.3Ω - 750K	24.3 - 1.0M							
MF1/4E			E: ±25	30.1 - 750K	30.1 - 1.0M	30.1 - 1.0M	30.1 - 1.0M					
MF1/4L			L: ±200	—	—	—	1.0 - 10	0.51 - 10	—			
MF1/2C	0.50W	700V	C: ±50	47.5 - 1.0M	47.5 - 1.5M	10 - 5.05M	10 - 4.99M	0.33 - 51M	0.33 - 51M	350V	700V	
MF1/2D			D: ±100	—	—		—					
MF1/2E			E: ±25	47.5 - 1.0M	47.5 - 1.5M	47.5 - 2.0M	47.5 - 2.0M					
MF1/2L			L: ±200	—	—	—	1.0 - 10	0.51 - 10	—			
MF1C	1W	700V	C: ±50	47.5Ω - 1.0M	47.5 - 2.49M	10Ω - 5.11M	1.0 - 6.81M	1.0 - 6.81M	1.0 - 6.81M	350V	700V	
MF1D			D: ±100	—	—							
MF1E			E: ±25	47.5 - 2.0M	7.5 - 2.49M	47.5 - 4.64M	47.5 - 5.11M	47.5 - 5.11M	47.5 - 5.11M			

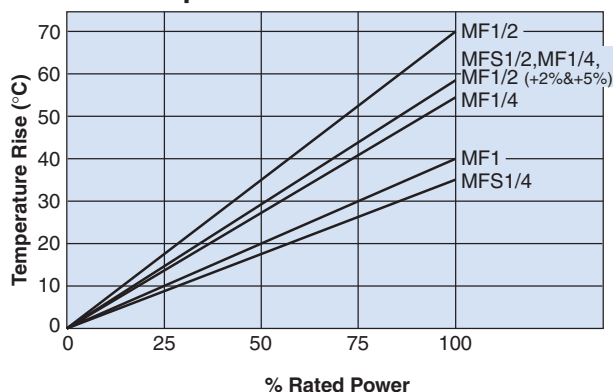
* Note: MFS1/4, 1.0% Resistance Range: 1.02-10M is available in C(SnCu) termination material only

environmental applications

Derating Curve



Surface Temperature Rise



Performance Characteristics

Parameter	Requirement
Temperature Coefficient	±200ppm/°C
Short Time Overload	±(0.30% + 0.05Ω)
Resistance to Solder Heat	±(0.20% + 0.05Ω)
Moisture Resistance	±1.5%
Load Life	±1.5%
Failure Rate	<10 ⁻⁵ /1000 hours
Temperature Cycling	±(0.50% + 0.05Ω)
Vibration	±(0.20% + 0.05Ω)
Shock	±(0.20% + 0.05Ω)
Terminal Strength	5 # Minimum
Current Noise	<1.0μv/v/decade
Voltage Coefficient	<20ppm/v
Low Temperature Operation	±(0.30% + 0.05Ω)