Commercial Grade Metal Film Resistor

CMF Series



Features:

- Metal film resistor
- Conformal coating
- Power ratings from 1/8W to 3W
- Resistance range from 10Ω to 1MΩ

NOT RECOMMENDED FOR NEW DESIGNS

Electrical Data

IRC Type	Power Rating at 70˚C (W)	Resistance Range (Ohms)	Tolerance (±%)	TCR (±ppm/˚C)	Max. Working Voltage (V)	Max. Overload Voltage (V)	Dielectric Withstanding Voltage (V)
Standard Size							
CMF-1/8	0.125	10 – 1M	1	100	200	400	400
CMF-1/4	0.25				250	500	500
CMF-1/2	0.5				350	700	700
CMF-1	1				500	1000	1000
CMF-2	2				500	1000	1000
CMF-3	3				500	1000	1000

Environmental Data

Short-time overload	ΔR/R ≤(±0.5% + 0.05Ω), with no evidence of mechanical damage.
Dielectric withstanding voltage	No evidence of flashover, mechanical damage, arcing or insulation breakdown.
Terminal strength	No evidence of mechanical damage.
Resistance to Soldering heat	ΔR/R ≤(±1% + 0.05Ω), with no evidence of mechanical damage.
Pulse Overload	ΔR/R ≤(±1% + 0.05Ω), with no evidence of mechanical damage.
Solderability	Minimum 95% coverage.
Resistance to solvent	No deterioration of protective coating and markings.
Temperature cycling	ΔR/R ≤(±1% + 0.05Ω), with no evidence of mechanical damage.
Load life in humidity	Standard type: ΔR/R ±3% for <100KΩ, ±5% for ≥100KΩ;
Load life	Standard type: ΔR/R ±1.5% Flame retardant type: R/R ±5%

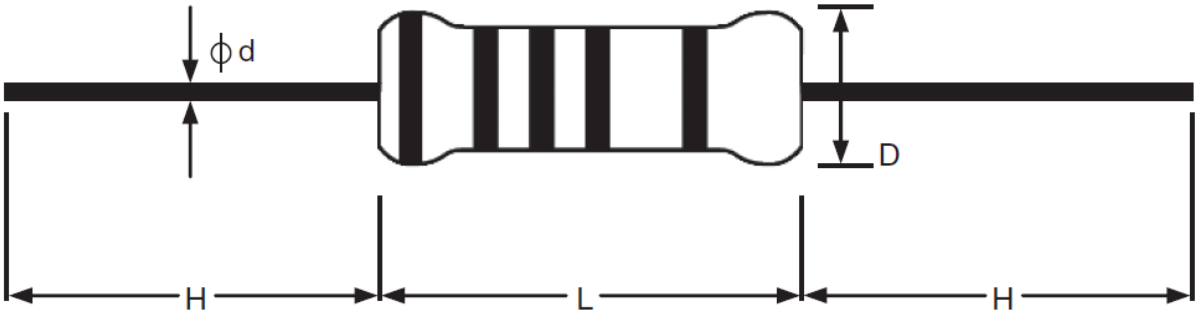
General Note
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	IRC Type	D (max.)	L (max.)	d (±0.02)	H (±3)
Standard Size	CMF-1/8	1.85	3.5	0.5	28
	CMF-1/4	2.5	6.8	0.6	28
	CMF-1/2	3.5	10.0	0.6	28
	CMF-1	5.0	12.0	0.7	28
	CMF-2	5.5	16.0	0.8	28
	CMF-3	6.5	17.5	0.8	28

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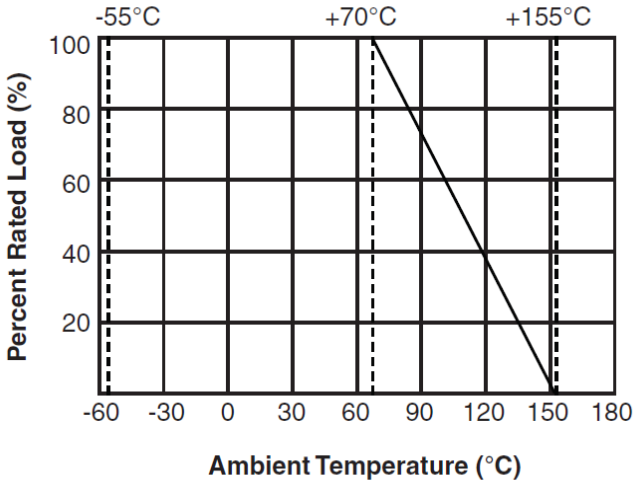
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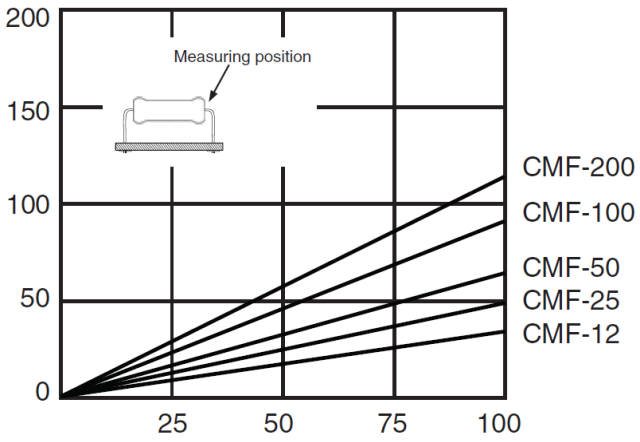
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Derating Curve



Hot Spot Temperature Curve



Ordering Data

Specify type, resistance, tolerance, RoHS-Compliance and packaging.
This example is for a Metal Film Resistor, 1-watt, 1000Ω resistor.

Sample Part No. CMF - 1 1001 F LF TR

IRC Type
CMF - Metal Film Resistor

Power Rating
(See specs table)

Resistance Value (EIA 4-digit code)
(≥100Ω - First 3 significant digits plus 4th digit multiplier)
Example: 100 ohms = 1000, 1000 ohms = 1001
(>100Ω - "R" is used to designate decimal)
Example: 10Ω = 10R0, 1Ω = 1R00, 51Ω = 51R0

Tolerance
F = ±1%; G = ±2%; J = ±5%

RoHS- compliance
LF = RoHS compliant construction

Packaging
TR = tape and reel only

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