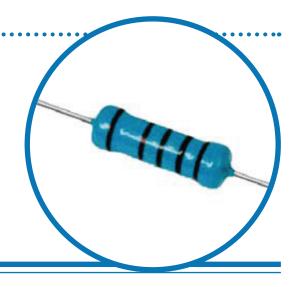
# Commercial Grade Metal Film Resistor



**CMF Series** 

- Metal film resistor
- **Conformal coating**
- Power ratings from 1/8W to 3W
- Resistance range from 10 $\Omega$  to 1M $\Omega$

# **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	$\Delta R/R \le (\pm 0.5\% + 0.05\Omega)$ , 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	$\Delta R/R \le (\pm 1\% + 0.05\Omega)$ , with no evidence of mechanical damage.				
Pulse Overload	$\Delta R/R \le (\pm 1\% + 0.05\Omega)$ , with no evidence of mechanical damage.				
Solderability	Minimum 95% coverage.				
Resistance to solvent	No deterioration of protective coating and markings.				
Temperature cycling	$\Delta R/R \le (\pm 1\% + 0.05\Omega)$ , with no evidence of mechanical damage.				
Load life in humidity	Standard type: $\Delta R/R \pm 3\%$ for <100K $\Omega$ , $\pm 5\%$ for $\geq 100$ K $\Omega$ ;				
Load life	Standard type: $\Delta R/R \pm 1.5\%$ Flame retardant type: R/R $\pm 5\%$				



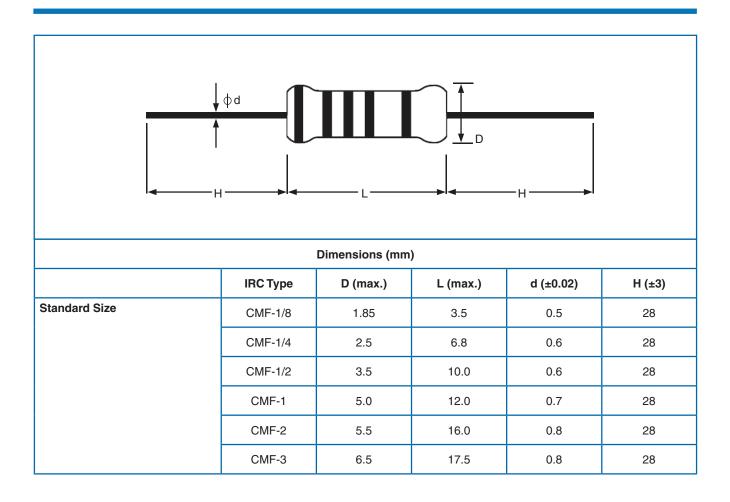








#### CMF Series NOT RECOMMENDED FOR NEW DESIGNS

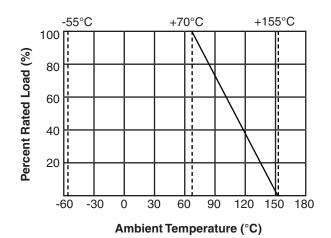




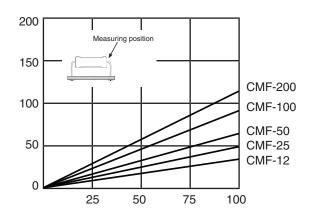


#### CMF Series NOT RECOMMENDED FOR NEW DESIGNS

## **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,  $1000\Omega$  resistor.

Sample Part No. · · · · · · · · · · · · · · · · · · ·	CMF	] - [	1	1001	F	LF	TR
IRC Type · · · · · CMF - Metal Film Resistor			•				
Power Rating · · · · · · · · · · · · · · · · · · ·			•				
<b>Resistance Value (EIA 4-digit code)</b> · · · · · · · (≥100Ω - First 3 significant digits plus 4th digit multiplier) Example: 100 ohms = 1000, 1000 ohms = 1001 (>100Ω - "R" is used to designate decimal) Example: $10\Omega = 10R0$ , $1\Omega = 1R00$ , $51\Omega = 51R0$	• • • • •	• • • •	• • •	· • <b>:</b>	•	•	
<b>Tolerance</b> $F = \pm 1\%$ ; $G = \pm 2\%$ ; $J = \pm 5\%$	• • • •	•••	• • •	••••	:	•	
RoHS- compliance · · · · · · · · · · · · · · · · · · ·	• • • • •	• • • •	• • •	• • • •			
Packaging	• • • •	• • • •	• • •		• • • •	• • • •	•••

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