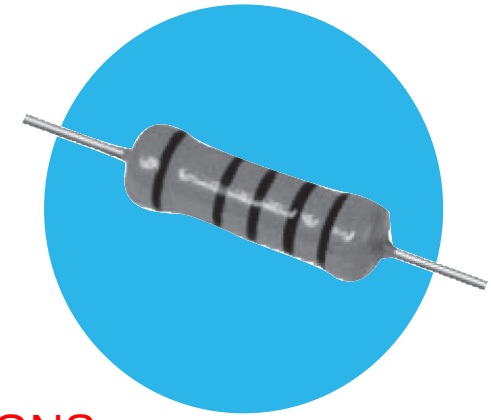
Resistors

Commercial Grade Metal Oxide Resistors



CMO Series

- High purity ceramic core
- Non-inductive type available
- Superior flame retardant coating
- Power ratings from 1/4W to 9W
- Meets EIA-RC2655A requirements
- Stable performance in harsh environments

NOT RECOMMENDED FOR NEW DESIGNS

All parts are Pb-free and comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

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							
CMO-1/4	0.25	0.3 - 50K	2, 5, 10	350	250	400	250
CMO-1/2	0.5	0.3 - 50K			250	400	250
CMO-1	1	0.3 - 50K			350	600	350
CMO-2	2	0.3 - 50K			350	600	350
CMO-3	3	5 - 100K			500	800	500
CMO-5	5	5 - 150K			750	1000	750
CMO-7	7	20 - 150K			750	1000	750
CMO-8	8	30 - 200K			750	1000	750
CMO-9	9	50 - 200K			750	1000	750
Miniature Size							
CMO-1/2S	0.5	0.3 - 50K	2, 5, 10	350	250	400	250
CMO-1S	1	0.3 - 50K			350	600	350
CMO-2S	2	0.3 - 50K			350	600	350
CMO-3S	3	0.3 - 50K			350	600	350
CMO-5SS	5	5 - 100K			500	800	500
CMO-5S	5	5 - 150K			500	800	500

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability.
All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

BI Technologies IRC Welwyn

www.ttelectronics.com/resistors

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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%

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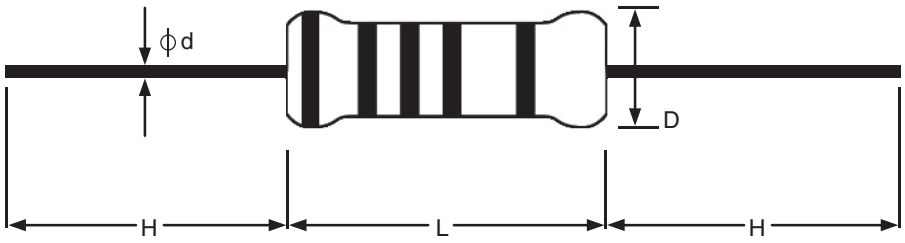
Physical Data



Dimensions (mm)					
	IRC Type	**D (max.)**	**L (max.)**	**d (±0.02)**	**H (±3)**
Standard Size	CMO-1/4	2.5	7.5	0.6	28
	CMO - 1/2	4.0	10.0	0.6	28
	CMO-1	5.0	12.0	0.7	28
	CMO-2	5.5	16.0	0.8	28
	CMO-3	6.5	17.5	0.8	28
	CMO-5	8.5	26.0	0.8	38
	CMO-7	8.5	32.0	0.8	38
	CMO-8	8.5	41.0	0.8	38
	CMO-9	8.5	54.0	0.8	38
Miniature Size	CMO - 1/2S	3.0	7.5	0.6	28
	CMO-1S	4.5	10.0	0.7	28
	CMO-2S	5.0	12.0	0.7	28
	CMO-3S	5.5	16.0	0.8	28
	CMO-5SS	6.5	17.5	0.8	28
	CMO-5S	8.0	25.0	0.8	38

- Standard gray base color for standard size product; Blue color for miniature size product
- Standard non-flammable coating

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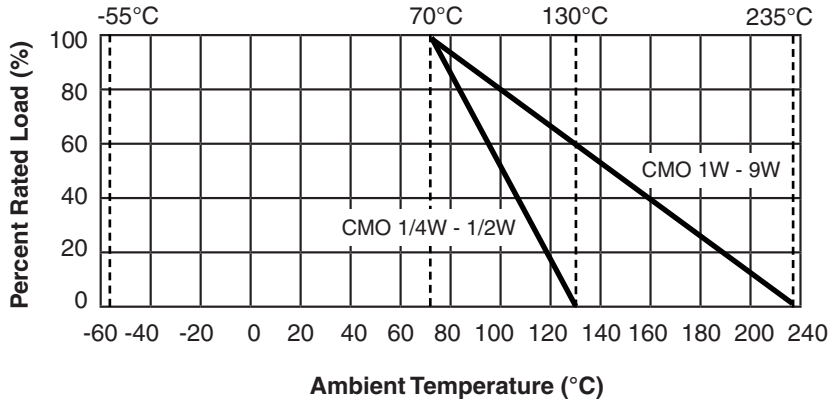
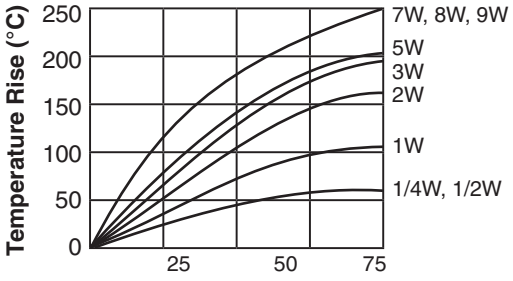
Power Derating Curve



Temperature Rise Chart



Ordering Data

Specify type, resistance, tolerance, RoHS-Compliance and packaging.
This example is for a Metal Oxide Resistor, 2-watt, 1000Ω resistor.

Sample Part No. CMO | 2 | 1001 | J | LF | TR

IRC Type

Power Rating
(See specs table)

Resistance Value (EIA 4-digit code)
(≥100Ω - First 3 significant digits plus 4th digit multiplier)
Example: 100Ω = 1000, 1000Ω = 1001; 150KΩ = 1503
(>100Ω - "R" is used to designate decimal)
Example: 10Ω = 51R0, 1Ω = 1R00, 0.25Ω = R250

Tolerance (EIA format)
G = ±2%; J = ±5%; K = ±10%

RoHS- compliance
LF = RoHS compliant construction

Packaging
TR = tape and reel only

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