

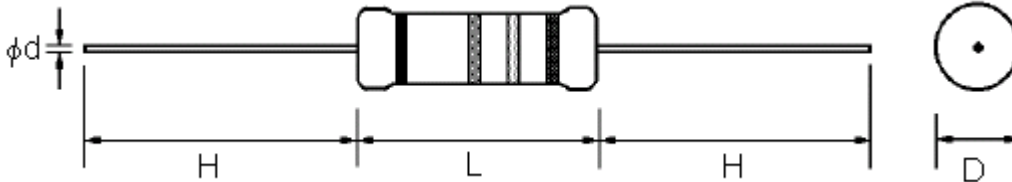
MCF 0.25W Series

Carbon Film Resistors



Features:

- Automatically insertable.
- High quality performance.
- Non-flame type available.
- Cost effective and commonly used.
- Too low or too high values can be supplied on a case to case basis.



Performance Specifications:

Temperature coefficient	: +350PPM/°C for $\leq 10\Omega$ +450PPM/°C for $11\Omega - 99K\Omega$ 0 ~ -700PPM/°C for $100K\Omega \sim 1M\Omega$ 0 ~ -1500PPM/°C for $1.1M\Omega \sim 10M\Omega$.
Short-time overload	: $\Delta R/R \leq \pm(1.0\% + 0.05\Omega)$, with no evidence of mechanical damage.
Minimum insulation resistance	: 10,000 Megaohm.
Dielectric withstanding voltage	: No evidence of flashover, mechanical damage, arcing or insulation breakdown.
Terminal strength	: No evidence of mechanical damage.
Resistance to soldering heat	: $\Delta R/R \leq \pm(1.0\% + 0.05\Omega)$, with no evidence of mechanical damage.
Minimum solderability	: 95% coverage.
Resistance to solvent	: No deterioration of protective coating and markings.
Temperature cycling	: $\Delta R/R \leq \pm(1.0\% + 0.05\Omega)$, with no evidence of mechanical damage.
Load life in humidity	: Normal type : $\Delta R/R \pm 3\%$ for $< 100K\Omega$, $\pm 5\%$ for $\geq 100K\Omega$ Non-flame type : $\Delta R/R \pm 5\%$ for $< 100K\Omega$, $\pm 10\%$ for $\geq 100K\Omega$.
Load life	: Normal type : $\Delta R/R \pm 2\%$ for $< 56K\Omega$, $\pm 3\%$ for $\geq 56K\Omega$ Non-flame type : $\Delta R/R \pm 5\%$ for $< 100K\Omega$, $\pm 10\%$ for $\geq 100K\Omega$.
Operating temperature	: -55°C to +155°C.

Specification Table

Series	Power Rating at 70°C (W)	Dimension				Maximum Working Voltage (V)	Maximum Overload Voltage (V)	Dielectric Withstanding Voltage (V)	Resistance Range
		Maximum Diameter (D)	Maximum Length (L)	Height (H ± 3)	Lead Diameter (d ± 0.05)				
MCF 0.25 W	1/4 (0.25)	2.5	6.8	28.0	0.54	250	500	500	$1\Omega \sim 10M\Omega$

Note: Standard E - 24 series values in $\pm 5\%$ tolerance.

Dimensions : Millimetres

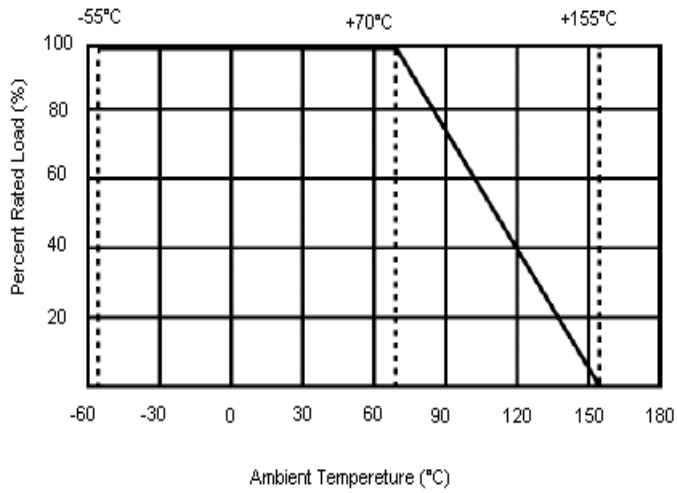


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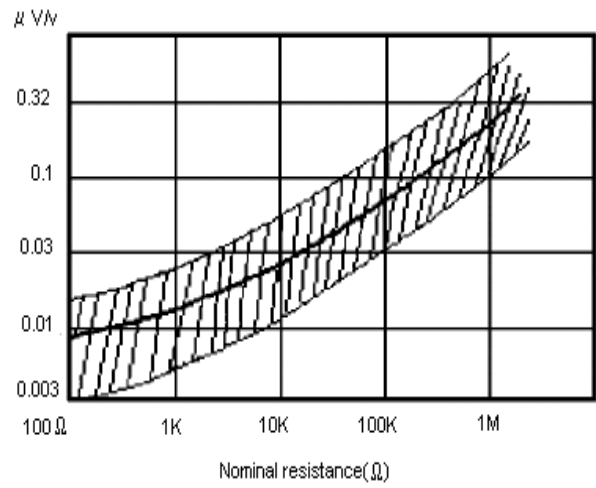
Carbon Film Resistors



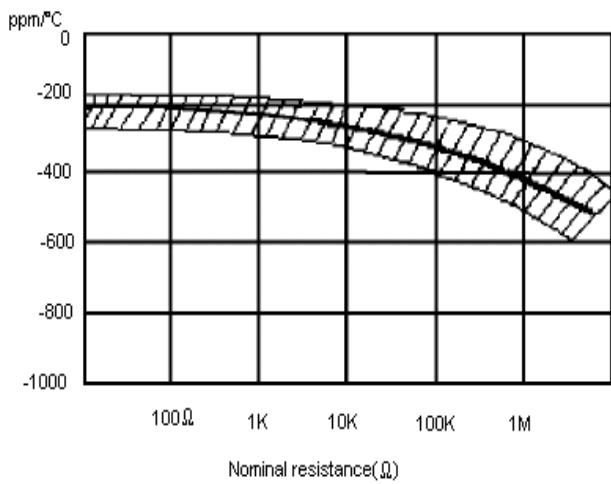
Derating Curve



Current Noise



Temperature Coefficient



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Resistance Preferred Value Range

E6	E12	E24	E96	E6	E12	E24	E96	E6	E12	E24	E96
10	10	10	10.0				21.5				46.4
			10.2	22	22	22	22.1	47	47	47	47.5
			10.5				22.6				48.7
			10.7				23.2				49.9
		11	11.0				23.7			51	51.1
			11.3			24	24.3				52.3
			11.5				24.9				53.6
			11.8				25.5				54.9
	12	12	12.1				26.1		56	56	56.2
			12.4				27.7				57.6
			12.7		27	27	27.4				59.0
		13	13.0				28.0				60.4
			13.3				28.7			62	61.9
			13.7				29.4				63.4
			14.0			30	30.1				64.9
			14.3				30.9				66.5
			14.7				31.6	68	68	68	68.1
15	15	15	15.0				32.4				69.8
			15.4	33	33	33	33.2				71.5
			15.8				34.0				73.2
		16	16.2				34.8			75	75.0
			16.5				35.7				76.8
			16.9			36	36.5				78.7
			17.4				37.4				80.6
			17.8				38.3		82	82	82.5
	18	18	18.2		39	39	39.2				84.5
			18.7				40.2				86.6
			19.1				41.2				88.7
			19.6				42.2			91	90.9
		20	20.0			43	43.2				93.1
			20.5				44.2				95.3
			21.0				45.3				97.6

Above values in accordance with IEC Publication 63 (1963) and BS2488

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Part Number Explanation

MCF

Type

0.25W

Power Rating

10R

Resistance

Stocked Values

Tolerance	Wattage (W)	Preferred Value Range	Range Value
5%	0.5	E24	1R - 10M



MCF 0.25W Series

Carbon Film Resistors



Notes:

International Sales Offices:



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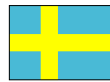
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