

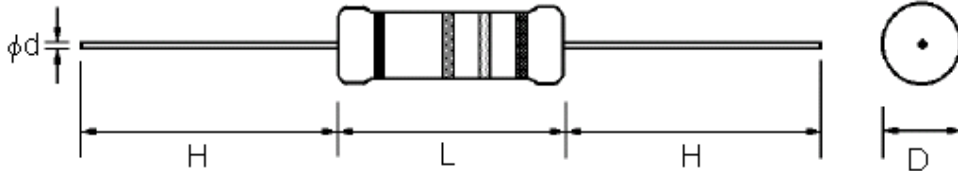
MCF 0.25W Series

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	1Ω ~ 10MΩ

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

Dimensions : Millimetres

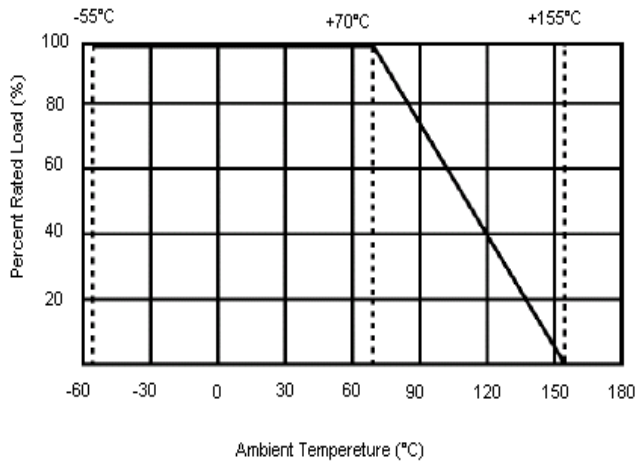


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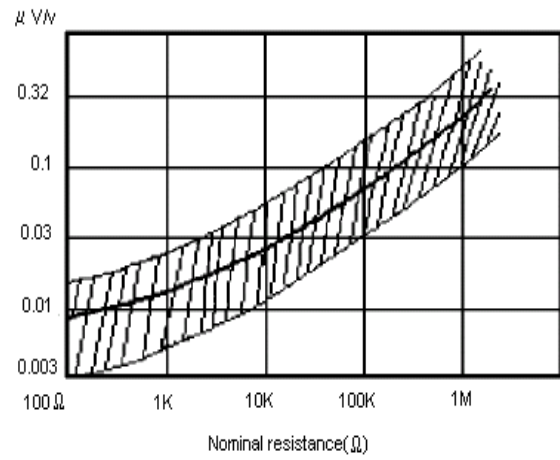
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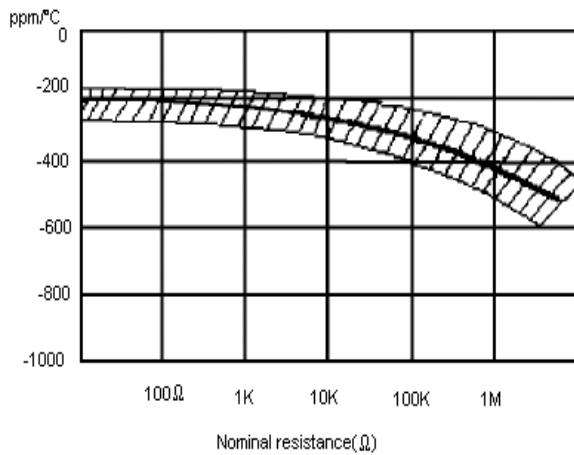
Derating Curve



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:

 AUSTRALIA – Farnell InOne Tel No: ++ 61 2 9645 8888 Fax No: ++ 61 2 9644 7898	 FINLAND – Farnell InOne Tel No: ++ 358 9 560 7780 Fax No: ++ 358 9 345 5411	 NETHERLANDS – Farnell InOne Tel No: ++ 31 30 241 7373 Fax No: ++ 31 30 241 7333	 SWITZERLAND – Farnell InOne Tel No: ++ 41 1 204 64 64 Fax No: ++ 41 1 204 64 54
 AUSTRIA – Farnell InOne Tel No: ++ 43 662 2180 680 Fax No: ++ 43 662 2180 670	 FRANCE – Farnell InOne Tel No: ++ 33 474 68 99 99 Fax No: ++ 33 474 68 99 90	 NEW ZEALAND – Farnell InOne Tel No: ++ 64 9 357 0646 Fax No: ++ 64 9 357 0656	 UK – Farnell InOne Tel No: ++ 44 8701 200 200 Fax No: ++ 44 8701 200 201
 BELGIUM – Farnell InOne Tel No: ++ 32 3 475 2810 Fax No: ++ 32 3 227 3648	 GERMANY – Farnell InOne Tel No: ++ 49 89 61 39 39 39 Fax No: ++ 49 89 613 59 01	 NORWAY – Farnell InOne Tel No: ++ 45 44 53 66 66 Fax No: ++ 45 44 53 66 02	 UK – BuckHickman InOne ++ 44 8450 510 150 ++ 44 8450 510 130
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For enquiries from all other markets

<http://www.farnellinone.com>

<http://www.buckhickmaninone.com>

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