

Metal film resistors

Order code	Manufacturer code	Description
64-0725	2322 157 15609	PACK 1000 56R 0.4W MF RESISTOR (RC)
64-0475	n/a	PACK 100 390R 0.4W MF RESISTOR
64-0480	n/a	PACK 100 470R 0.4W MF RESISTOR MRS16 RC
64-0710	2322 157 12209	PACK 1000 22R 0.4W MF RESISTOR MRS16 RC
64-0715	2322 157 13309	PACK 1000 33R 0.4W MF RESISTOR MRS16
64-0720	2322 157 14709	PACK 1000 47R 0.4W MF RES *OFFER 62-2784
64-0680	n/a	PACK 100 1M 0.4W MF RESISTOR MRS16 (RC)
64-0700	2322 157 11009	PACK 1000 10R 0.4W MF RESISTOR MRS16 RC
64-0705	2322 157 11509	PACK 1000 15R 0.4W MF RESISTOR
64-0425	n/a	PACK 100 56R 0.4W MF RESISTOR
64-0670	n/a	PACK 100 680K 0.4W MF RESISTOR
64-0675	n/a	PACK 100 820K 0.4W MF RESISTOR
64-0410	n/a	PACK 100 22R 0.4W MF RESISTOR MRS16 (RC)
64-0415	n/a	PACK 100 33R 0.4W MF RESISTOR MRS16
64-0420	n/a	PACK 100 47R 0.4W MF MRS16*OFFER 62-2534
64-0590	n/a	PK 100 33K 0.4W MF MRS16 *OFFER 62-2670*
64-0400	n/a	PACK 100 10R 0.4W MF RESISTOR MRS16 (RC)
64-0405	n/a	PACK 100 15R 0.4W MF RESISTOR
64-0575	n/a	PACK 100 18K 0.4W MF RESISTOR
64-0580	n/a	PACK 100 22K 0.4W MF RESISTOR MRS16 (RC)
64-0585	n/a	PACK 100 27K 0.4W MF RESISTOR
64-0560	n/a	PACK 100 10K 0.4W MF RESISTOR MRS16 (RC)
64-0565	n/a	PACK 100 12K 0.4W MF RESISTOR MRS16
64-0570	n/a	PACK 100 15K 0.4W MF RESISTOR MRS16 (RC)
64-0470	n/a	PACK 100 330R 0.4W MF RESISTOR MRS16 RC
64-0550	n/a	PACK 100 6K8 0.4W MF RESISTOR MRS16 (RC)
64-0555	n/a	PACK 100 8K2 0.4W MF MRS16*OFFER 62-2642
64-0455	n/a	PACK 100 180R 0.4W MF RESISTOR
64-0460	n/a	PACK 100 220R 0.4W MF RESISTOR MRS16 RC
64-0465	n/a	PK 100 270R 0.4W MF MRS16 *OFFER 62-2570
64-0440	n/a	PACK 100 100R 0.4W MF RESISTOR MRS16 RC
64-0445	n/a	PACK 100 120R 0.4W MF RESISTOR MRS16 RC
64-0450	n/a	PK 100 150R 0.4W MF MRS16 *OFFER 62-2558
64-0980	2322 157 11005	PACK 1000 1M 0.4W MF RESISTOR MRS16 (RC)
64-0430	n/a	PACK 100 68R 0.4W MF RESISTOR MRS16 (RC)
64-0435	n/a	PACK 100 82R 0.4W MF RESISTOR
64-0920	2322 157 11004	PK 1000 100K 0.4W MF RESISTOR MRS16 RC
64-0970	2322 157 16804	PK 1000 680K 0.4W MF RESISTOR MRS16
64-0975	2322 157 18204	PK 1000 820K 0.4W MF RESISTOR
64-0905	2322 157 15603	PACK 1000 56K 0.4W MF RESISTOR RC
64-0910	2322 157 16803	PACK 1000 68K 0.4W MF RESISTOR MRS16(RC)
64-0915	2322 157 18203	PACK 1000 82K 0.4W MF RESISTOR
64-0890	2322 157 13303	PK 1000 33K 0.4W MF MRS16 *OFFER 62-2920
64-0895	2322 157 13903	PACK 1000 39K 0.4W MF RESISTOR (RC)
64-0900	2322 157 14703	PACK 1000 47K 0.4W MF RESISTOR MRS16
64-0875	2322 157 11803	PACK 1000 18K 0.4W MF RESISTOR MRS16

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The enclosed information is believed to be correct, Information may change without notice due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 20/02/2007

Metal film resistors

Order code	Manufacturer code	Description
64-0880	2322 157 12203	PACK 1000 22K 0.4W MF RESISTOR MRS16 RC
64-0885	2322 157 12703	PACK 1000 27K 0.4W MF RESISTOR
64-0860	2322 157 11003	PACK 1000 10K 0.4W MF RESISTOR MRS16 RC
64-0865	2322 157 11203	PACK 1000 12K 0.4W MF RESISTOR
64-0870	2322 157 11503	PACK 1000 15K 0.4W MF RESISTOR MRS16 RC
64-0800	2322 157 11002	PACK 1000 1K 0.4W MF RESISTOR (RC)
64-0850	2322 157 16802	PACK 1000 6K8 0.4W MF RESISTOR MRS16 RC
64-0855	2322 157 18202	PACK 1000 8K2 0.4W MF *OFFER 62-2892*
64-0785	2322 157 15601	PK 1000 560R 0.4W MF RESISTOR
64-0790	2322 157 16801	PK 1000 680R 0.4W MF RESISTOR MRS16(RC)
64-0795	2322 157 18201	PK 1000 820R 0.4W MF RESISTOR
64-0770	2322 157 13301	PK 1000 330R 0.4W MF RESISTOR MRS16 RC
64-0775	2322 157 13901	PK 1000 390R 0.4W MF RESISTOR MRS16
64-0780	2322 157 14701	PK 1000 470R 0.4W MF RESISTOR MRS16 (RC)
64-0755	2322 157 11801	PK 1000 180R 0.4W MF RESISTOR
64-0760	2322 157 12201	PK 1000 220R 0.4W MF RESISTOR MRS16 (RC)
64-0765	2322 157 12701	PK 1000 270R 0.4W MRS16 *OFFER 62-2820*
64-0740	2322 157 11001	PK 1000 100R 0.4W MF RESISTOR MRS16 RC
64-0745	2322 157 11201	PK 1000 120R 0.4W MF RESISTOR MRS16 RC
64-0750	2322 157 11501	PK 1000 150R 0.4W MF MRS16*OFFER 62-2808
64-0965	2322 157 15604	PK 1000 560K 0.4W MF RESISTOR MRS16 (RC)
64-0730	2322 157 16809	PACK 1000 68R 0.4W MF RESISTOR MRS16 RC
64-0735	2322 157 18209	PACK 1000 82R 0.4W MF RESISTOR
64-0950	2322 157 13304	PK 1000 330K 0.4W MF MRS16*OFFER 62-2968
64-0955	2322 157 13904	PK 1000 390K 0.4W MF RESISTOR MRS16(RC)
64-0960	2322 157 14704	PK 1000 470K 0.4W MF RESISTOR
64-0935	2322 157 11804	PK 1000 180K 0.4W MF RESISTOR MRS16 RC
64-0940	2322 157 12204	PK 1000 220K 0.4W MF RESISTOR MRS16 RC
64-0945	2322 157 12704	PK 1000 270K 0.4W MF RESISTOR
64-0665	n/a	PACK 100 560K 0.4W MF RESISTOR
64-0925	2322 157 11204	PK 1000 120K 0.4W MF RESISTOR
64-0930	2322 157 11504	PK 1000 150K 0.4W MF RESISTOR
64-0650	n/a	PK100 330K 0.4W MF MRS16 *OFFER 62-2718*
64-0655	n/a	PACK 100 390K 0.4W MF RESISTOR MRS16 RC
64-0660	n/a	PACK 100 470K 0.4W MF RESISTOR MRS16
64-0635	n/a	PACK 100 180K 0.4W MF RESISTOR
64-0640	n/a	PACK 100 220K 0.4W MF RESISTOR MRS16 RC
64-0645	n/a	PACK 100 270K 0.4W MF RESISTOR
64-0620	n/a	PACK 100 100K 0.4W MF RESISTOR MRS16 RC
64-0625	n/a	PACK 100 120K 0.4W MF RESISTOR MRS16
64-0630	n/a	PACK 100 150K 0.4W MF RESISTOR
64-0605	n/a	PACK 100 56K 0.4W MF RESISTOR MRS16 (RC)
64-0610	n/a	PACK 100 68K 0.4W MF RESISTOR MRS16 (RC)
64-0615	n/a	PACK 100 82K 0.4W MF RESISTOR
64-0845	2322 157 15602	PACK 1000 5K6 0.4W MF RESISTOR MRS16(RC)
64-0595	n/a	PACK 100 39K 0.4W MF RESISTOR

Metal film resistors

Order code	Manufacturer code	Description
64-0600	n/a	PACK 100 47K 0.4W MF RESISTOR MRS16
64-0830	2322 157 13302	PK 1000 3K3 0.4W MF MRS16 *OFFER 62-2872
64-0835	2322 157 13902	PACK 1000 3K9 0.4W MF RESISTOR MRS16(RC)
64-0840	2322 157 14702	PACK 1000 4K7 0.4W MF RESISTOR MRS16 RC
64-0815	2322 157 11802	PK 1000 1K8 0.4W MF MRS16 **62-2860**
64-0820	2322 157 12202	PACK 1000 2K2 0.4W MF RESISTOR
64-0825	2322 157 12702	PACK 1000 2K7 0.4W MF RESISTOR MRS16(RC)
64-0545	n/a	PACK 100 5K6 0.4W MF RESISTOR MRS16 (RC)
64-0805	2322 157 11202	PACK 1000 1K2 0.4W MF RESISTOR MRS16 RC
64-0810	2322 157 11502	PACK 1000 1K5 0.4W MF RESISTOR
64-0530	n/a	PK 100 3K3 0.4W MF MRS16 *OFFER 62-2622*
64-0535	n/a	PACK 100 3K9 0.4W MF RESISTOR MRS16 (RC)
64-0540	n/a	PACK 100 4K7 0.4W MF RESISTOR MRS16 (RC)
64-0515	n/a	PK 100 1K8 0.4W MF MRS16 *OFFER 62-2610*
64-0520	n/a	PACK 100 2K2 0.4W MF RESISTOR MRS16
64-0525	n/a	PACK 100 2K7 0.4W MF RESISTOR MRS16 (RC)
64-0500	n/a	PACK 100 1K 0.4W MF RESISTOR MRS16 (RC)
64-0505	n/a	PACK 100 1K2 0.4W MF RESISTOR MRS16 (RC)
64-0510	n/a	PACK 100 1K5 0.4W MF MRS16*OFFER 62-2606
64-0485	n/a	PACK 100 560R 0.4W MF RESISTOR
64-0490	n/a	PACK 100 680R 0.4W MF RESISTOR MRS16 RC
64-0495	n/a	PACK 100 820R 0.4W MF RESISTOR

Philips MRS16T 0.4W 1% metal film resistors

FEATURES

- Precision resistors in small outlines
- Low noise

APPLICATIONS

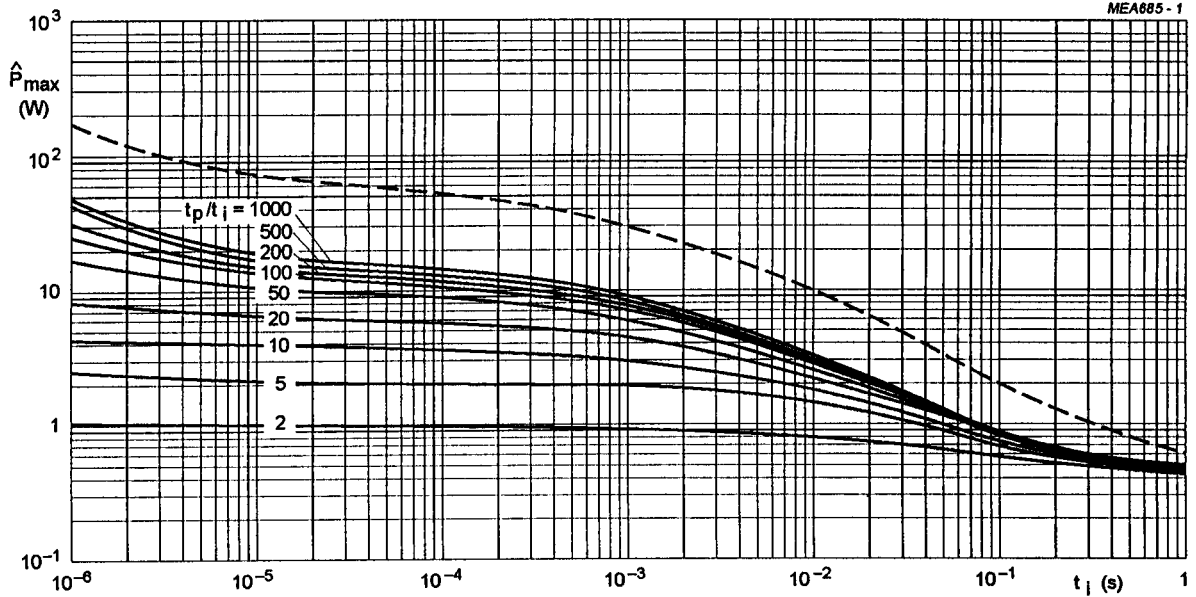
- All general purpose applications

DESCRIPTION

A homogeneous film of metal alloy is deposited on a high-grade ceramic body. After a helical groove has been cut in the resistive layer, tinned connecting wires of electrolytic copper iron are welded to the end-caps. The resistors are coated with a green laquer which provides electrical, mechanical and climatic protection. The encapsulation is resistant to all cleaning solvents in accordance with MIL-STD-202E method 215 and IEC 68-2-45.

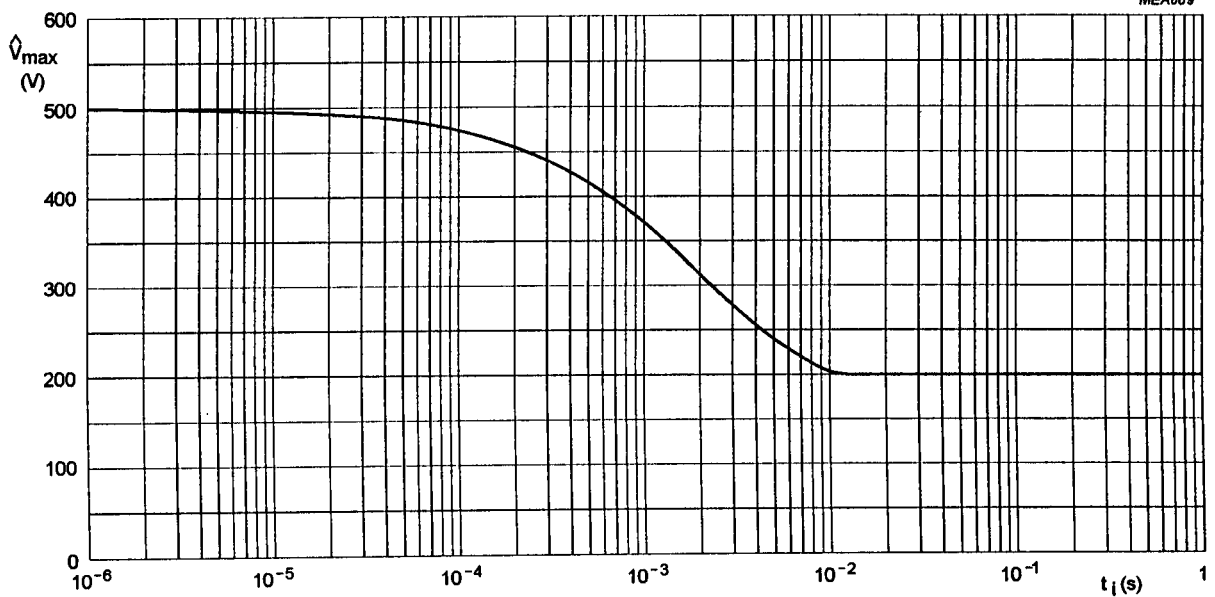
QUICK REFERENCE DATA

DESCRIPTION	VALUE
	MRS16T
Resistance range	4.99Ω to 1MΩ
Resistance tolerance and series	±1%; E24/E96 series
Maximum dissipation at T _{amb} = 70°C	0.4W
Thermal resistance (R _{th})	170K/W
Temperature coefficient	≤ ±50 x 10 ⁻⁶ /K
Maximum permissible voltage (DC or RMS)	200V
Basic specifications	IEC 115-1 and 115-
Climatic category (IEC 68)	55/155/56
Stability after:	
Load	
R ≤ 100 KΩ	ΔR/R max: ±0.5% +0.05Ω
R > 100 KΩ	ΔR/R max: ±1% + 0.05Ω
Climatic tests	
R ≤ 100KΩ	ΔR/R max: ±0.5% +0.05Ω
R > 100KΩ	ΔR/R max: ±1% +0.05Ω
Soldering	
R ≤ 100KΩ	ΔR/R max: ±0.1% +0.05Ω
R > 100KΩ	ΔR/R max: ±0.25% + 0.05Ω
Short time overload	ΔR/R max: ±0.25% +0.05Ω



MRS16T

Fig.4 Pulse on a regular basis; maximum permissible peak pulse power (\hat{P}_{max}) as a function of pulse duration (t_i).



MRS16T

Fig.5 Pulse on a regular basis; maximum permissible peak pulse voltage (\hat{V}_{max}) as a function of pulse duration (t_i).

Fig. 8 Hot spot temperature rise (ΔT) as a function Of dissipated power.

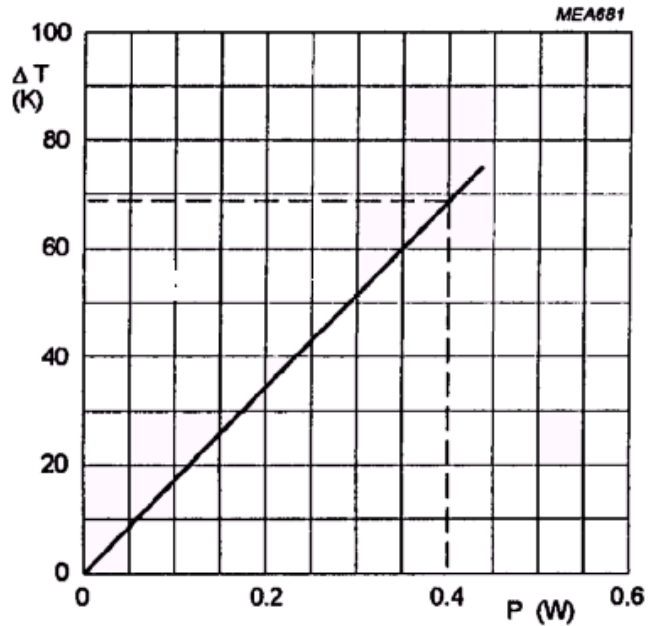
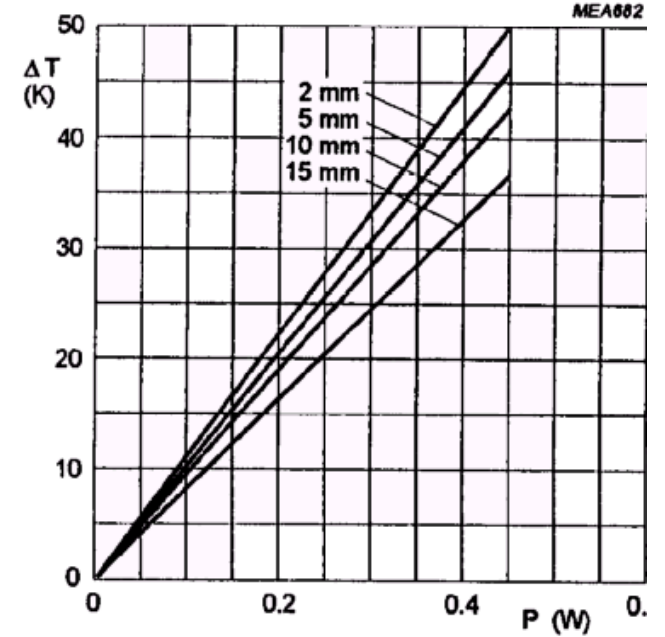


Fig. 8 Hot spot temperature rise (ΔT) as a function Of dissipated power.



MECHANICAL DATA

Mass per 100 units

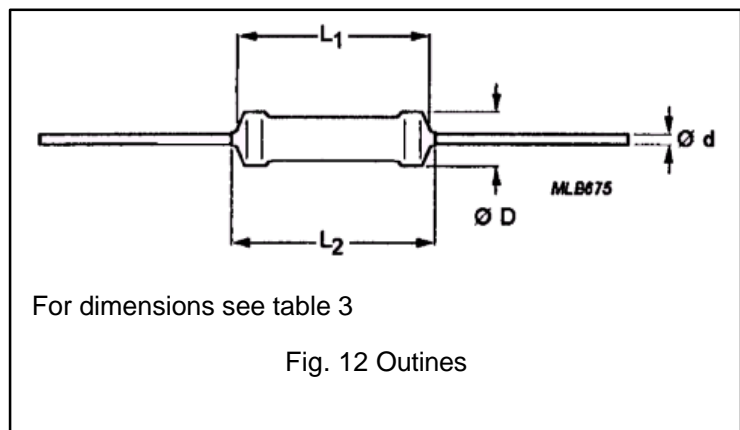
TYPE	MASS(g)
MRS16T	12.5

Marking

The nominal resistance and tolerance are marked on the resistor using five coloured bands in accordance with IEC publication 62 "Colour codes for fixed resistors"

Outlines

The length of the body (L_1) is measured by inserting the leads into holes of two identical gauge plates and moving these plates parallel to each other until the resistor body is clamped without deformation. (IEC publication 294)



For dimensions see table 3

Fig. 12 Outlines

Table 3 Resistor type and relevant physical dimensions (see figure 12)

Type	ØD MAX (mm)	L ₁ MAX (mm)	L ₂ MAX (mm)	Ød (mm)
MRS16T	1.9	3.7	3.7	0.5