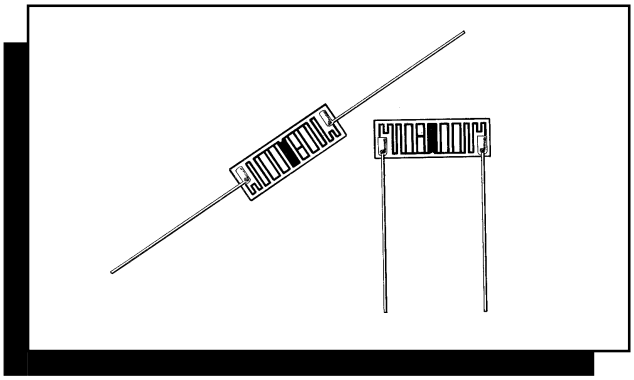
MEGGITT CGS

HIGH VOLTAGE RESISTORS
HIGH VALUE RESISTORS
HIGH POWER RESISTORS
ALUMINIUM CLAD RESISTORS
CURRENT SENSE RESISTORS

High Value/Voltage Resistors

TYPE HB SERIES



Meggitt CGS are pleased to offer the new wider HB range of high value, high voltage resistors. The CGS HBO and HVF ranges and the Holsworthy TFR2 Series were merged into one new important high voltage plate resistor - the HB. This new series offers an epoxy coated package with axial or radial leads, values up to 1 gig ohm, and an operating voltage to 20KV as standard and 30KV to order. Custom designs are particularly welcomed.

MEGGITT CGS KEY FEATURES

- **ELEMENT VOLTAGE UPTO 20KV**
- **EXCELLENT SIZE TO POWER RATIO**
- **RESISTANCE VALUES UP TO 1 GIG OHM**
- **HIGH RELIABILITY**
- **LOW NOISE AT LOW VALUES**
- **ATTRACTIVELY PRICED**
- **CUSTOM DESIGNS PARTICULARLY WELCOME**
- **IN STOCK AT RS COMPONENTS**

MEGGITT
ELECTRONIC
COMPONENTS

SALES ACTION DESK
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SPECIFICATION TYPE HB SERIES

ELECTRICAL

TYPE	Working Voltage KV Maximum DC	Watts at 20°C	Watts at 70°C	Value Range
HBA (HVF1)	1.0	0.8	0.4	1K - 120 Meg
HB1	7.5	2.0	1.0	10K - 1 Gig
HB3	15.0	4.0	2.0	10K - 1 Gig

Resistance Tolerance:	1%, 2%, 5% Std. - 0.5%, 0.25%, 0.1% Special	
Temperature Coefficient:	± 100ppm/°C	
	± 50ppm/°C, Availability on request.	
Voltage Coefficient:	HBA, HB1 Types	Negligible up to 100K.
	Increasing to 0.02ppm/Volt applied at 800K.	Increasing to 1.0ppm/Volt applied at 5M0
	Increasing to 2.0ppm/Volt applied at 50M.	Increasing to 8.0ppm/Volt applied at 1000M.
	HB3 Type.	Negligible up to 200K.
	Increasing to 0.01ppm/Volt applied at 1M0.	Increasing to 1.0ppm/Volt applied at 10M.
	Increasing to 2.0ppm/Volt applied at 100M.	Increasing to 8.0ppm/Volt applied at 1000M.
Noise (Quantech):	Dependent on resistor type and ohmic value.	-20db (0.1µV/V) at lower values. (Up to + 10db (3.3 µV/V) at higher values.)
Insulation Resistance:	Better than 10^6 Meg ohms at 500V dc. Epoxy Encapsulation only.	
Derating Curve:	Wattage rating at 70°C derates linearly to zero at 150°C	

ENVIRONMENTAL

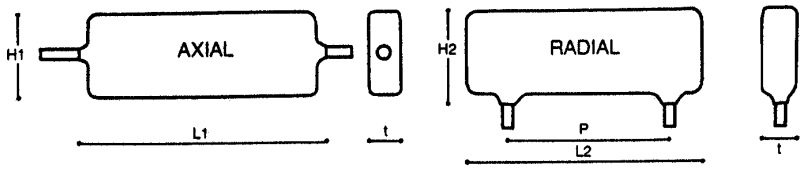
Ambient Temperature Range:	-55°C to +125°C
Load Stability:	Better than 0.5% (1000 hrs. at 70°C)
Long Term Damp Heat:	Better than 0.25% (Steady state 56 days 95% RH at 40°C)
Rapid Change of Temperature:	Better than 0.1% (-55°C to +125°C for 5 cycles)
Resistance to Soldering Heat:	Better than 0.05% (350 °C for 3.5 secs)
Encapsulation:	Conformal coating. Epoxy Rersin Suffix E. (Standard)
	Screen Printed Coating. Silicone Suffix S. (Special)
Resistor Marking:	Legend printed - Type, Value, Tolerance, Date Code.
Solvent Resistance:	The print will withstand the action of all commonly used industrial cleansing solvents.
Lead Material:	Tinned Copper Wire.
Lead Length:	Minimum 20mm/0.8 inches.
Lead Diameter:	Nominal 0.63mm/0.025 inches.

N.B. Working voltages above apply to Epoxy caoted versions only.

DIMENSIONS

N.B. HB1RE, HB3RE. The following values are stock. For non-stock values we normally seek a print run of 500 pieces.
10K, 20K, 50K, 100K, 200K, 500K, 1M, 2M, 5M, 10M, 20M, 50M, 100M, 200M, 300M, 500M, 1GIG.

	HBA (HVF1)	HB1	HB3
L1	N/A	28.8 Maximum	53.5 Maximum
L2	8.0	26.5	52.8
H1	N/A	9.2	9.2
H2	12.5	10.4	10.4
d	2.6	3.0	2.0
P Nominal	5.0	22.9	48.3
Weight (grms)	0.7	1.35	11.0



All Dimensions are in mm and nominal. Do Not Scale.

HOW TO ORDER

HB	3	1K0	J	Z	R	E
COMMON PART	DISSIPATION AT 70°C	RESISTANCE VALUES	TOLERANCE	TEMPERATURE COEFFICIENT OF RESISTANCE	LEAD STYLES	COATING STYLES
HB	A - 0.4 Watts 1 - 1.0 Watts 3- 2.0 Watts 5 - 4.5 Watts	1K ohm (1000 ohms) 1K0 1 Meg ohm (1,000,000 ohms) 1MO	F - 1% G - 2% J - 5%	Z - 100 ppm C - 50ppm	R - Radial Leads A - Axial Leads (HB1, HB3 Only for Axial Leads)	E - Epoxy Blue Coating S - Printed Silicone Coating N.B. Working voltage only applies to Epoxy Coated

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