Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Metal Film Resistors

High Precision Type

Normal Style [MHP Series]

INTRODUCTION

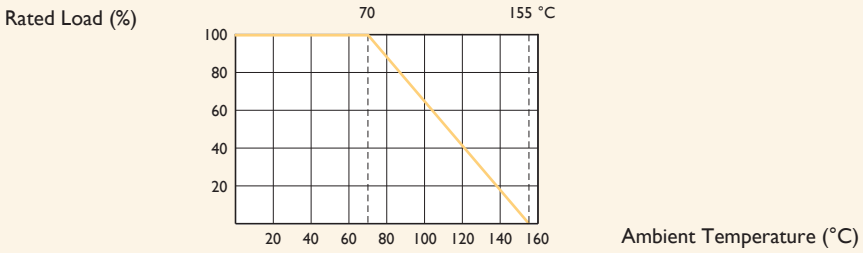
The MHP Series Metal Film High Precision Resistors are manufactured using vacuum sputtering system to deposit multiple layers of mixed metals alloy and passivative materials onto a carefully treated high grade ceramic substrate. After a helical groove has been cut in the resistive layer, tinned connecting leads of electrolytic copper are welded to the end-caps. The resistors are coated with layers of blue color lacquer. Ultra high precision resistors, ultra high stability, ultra low temperature coefficient.

FEATURES

Power Rating	1/4W, 1/2W
Resistance Tolerance	±0.02%, ±0.05%
T.C.R.	±5ppm/°C, ±10ppm/°C

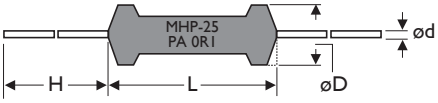
DERATING CURVE

For resistors operated in ambient temperatures above 70°C, power rating must be derated in accordance with the curve below.



DIMENSIONS

Unit: mm



Alphanumeric marking

STYEL	DIMENSION			
Normal	L	øD	H	ød
MHP-25	6.2±0.3	1.8±0.3	36±2.0	0.63±0.05
MHP-50	9.1±0.3	2.1±0.3	36±3.0	0.63±0.05

Note:

ELECTRICAL CHARACTERISTICS

STYLE	MHP-25	MHP-50
Power Rating at 70°C	1/4W	1/2W
Maximum Working Voltage	200V	250V
Maximum Overload Voltage	400V	500V
Dielectric Withstanding Voltage	300V	500V
Resistance Range	100 Ω - 500K Ω for E192 series value	
Operating Temp. Range	-55°C to +150°C	
Temperature Coefficient	±5ppm/°C, ±10ppm/°C	

Note: Special value is available on request.

ENVIRONMENTAL CHARACTERISTIC

PERFORMANCE TEST	TEST METHOD		APPRAISE
Short Time Overload	JIS-C-5202 5.5	2.5 times RCWV for 5 Sec.	±0.25%+0.05 Ω
Dielectric Withstanding Voltage	JIS-C-5202 5.7	in V-Block for 60 Sec.	By type
Temperature Coefficient	JIS-C-5202 5.2	-55°C to +150°C	By type
Insulation Resistance	JIS-C-5202 5.6	in V-Block	>10,000M Ω
Solderability	JIS-C-5202 6.5	260±5°C for 5±0.5 Sec.	95% Min. coverage
Resistance to Solvent	JIS-C-5202 6.9	IPA for 1 Min. with ultrasonic	No deterioration of coatings and markings
Terminal Strength	JIS-C-5202 6.1	Direct load for 5 Sec. In the direction of the terminal leads	≥2.5kg (24.5N)
Pulse Overload	JIS-C-5202 5.8	4 times RCWV for 10,000 cycles (1 Sec. on, 25 Sec.off)	±1.0%+0.05 Ω
Load Life in Humidity	JIS-C-5202 7.9	40±2°C, 90 - 95% RH at RCWV for 1,000 Hr. (1.5 Hr. on, 0.5 Hr. off)	±0.5%+0.05 Ω
Load Life	JIS-C-5202 7.10	70°C at RCWV for 1,000 Hr. (1.5 Hr. on, 0.5 Hr. off)	±0.5%+0.05 Ω
Temperature Cycling	JIS-C-5202 7.4	-55°C ⇨ Room Temp. ⇨ +155°C ⇨ Room Temp. (5 cycles)	±0.015%+0.05 Ω
Resistance to Soldering Heat	JIS-C-5202 6.4	350±10°C for 3±0.5 Sec.	±0.1%+0.05 Ω

Note: Rated Continuous Working Voltage (RCWV) = $\sqrt{\text{Power Rating} \times \text{Resistance Value}}$