

# OMEGA PRODUCTS PVT. LTD.

## Metal Film Resistors (Miniature)

### OMM Series

### DESCRIPTION

A homogeneous Film of Nicrom alloy is sputtered deposited on 85 to 96% Alumina Ceramic Rods and conditioned to achieve the desired Temperature Coefficient. Nickel plated caps are firmly pressed on the metallised rods. A special Laser machine is used to achieve the highly precise resistance tolerance by cutting a helical groove in the nicrom film layer. Tin coated electrolytic copper wire are spot welded to the center of the termination caps. The resistor are coated with special epoxy or Flame proof Epoxy for Electrical , Mechanical and climatic protection,colour codes are applied with respect to designated value on coated Resistor.All Resistors are subjected to testing before final taping process.

### FEATURES :

Wide Range of Resistors  
 Low TCR upto 5 ppm/°C  
 Low Tolerances up to  $\pm 0.01\%$   
 Pulse withstanding design available  
 Flame proof coating available  
 RoHS Compliant  
 Custom Built Design and values available



### SPECIFICATION

TYPE	WATTAGE	L	D	l	d	Working Voltage	Resistance Range	TCR
OMM40	0.4 W	3.7 $\pm$ 0.2	1.7 $\pm$ 0.2	25 $\pm$ 0.2	0.45 $\pm$ 0.02	200V	1R to 4M7	25, 50, 100
OMM50	0.50 W	6.5 $\pm$ 0.5	2.3 $\pm$ 0.2	25 $\pm$ 0.2	0.60 $\pm$ 0.02	250V	1R to 4M7	25, 50, 100
OMM60	0.60 W	6.5 $\pm$ 0.5	2.3 $\pm$ 0.2	25 $\pm$ 0.2	0.60 $\pm$ 0.02	250V	1R to 4M7	25, 50, 100
OMM100	1W	9.5 $\pm$ 0.5	3.5 $\pm$ 0.2	25 $\pm$ 0.2	0.60 $\pm$ 0.02	350V	1R to 4M7	25, 50, 100
OMM200	2W	9.5 $\pm$ 0.5	3.5 $\pm$ 0.2	25 $\pm$ 0.2	0.60 $\pm$ 0.02	500V	1R to 4M7	25, 50, 100

### PERFORMANCE CHARACTERISTIC

#### Requirement Shall not Exceed

Short Term Overload (2.5 x Rated voltage - 5 Sec)	Delta R	$\pm (0.5\% + 0.05 \text{ Ohms})$	
Load Life (Rated at 70°C 1000 Hrs 1.5/0.5 Hr ON/OFF)	Delta R	$\pm (1.0\% + 0.05 \text{ Ohms})$	
Temperature Cycling (-55 / +155, 5 cycles )	Delta R	$\pm (0.5\% + 0.05 \text{ Ohms})$	
Insulation Resistance (at 500V for 1 Min)	Shall not be less than 10 000 M Ohms		
DWV Test	Delta R	$\pm (0.5\% + 0.05 \text{ Ohms})$	& No Flash over
Resistance Soldering Heat (260°C 10 Sec)	Delta R	$\pm (0.5\% + 0.05 \text{ Ohms})$	
Solderability (Solder bath dip - 5 Sec)	Greater than 95% Coverage		
Resistance to Solvents (Solvent dip - 3 min)	No effect of IPA /TCE Solvents		
Damp Heat Steady State (40°C/95% Rh - 56 days)	Delta R	$\pm (1.0\% + 0.05 \text{ Ohms})$	
Vibration (10 to 2000 Hz )	Delta R	$\pm (0.5\% + 0.05 \text{ Ohms})$	
Shock (1 Km/S <sup>2</sup> )	Delta R	$\pm (0.5\% + 0.05 \text{ Ohms})$	
Low Temp Operation ( -55°C 2 Hrs without Loading)	Delta R	$\pm (0.5\% + 0.05 \text{ Ohms})$	
High Temp Operation(+155°C 16 Hrs without Loading)	Delta R	$\pm (1.0\% + 0.05 \text{ Ohms})$	
Terminal Strength (Bending, Tensile)	Delta R	$\pm (0.25\% + 0.05 \text{ Ohms})$	& No Mech. Damage

### Ordering Info:

OMM50 100K 1% 50 PPM T/R

\*Specifications is subject to change without notice