

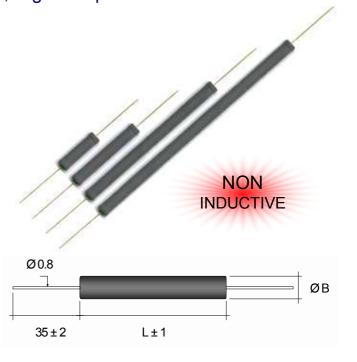


## High Voltage Power Resistors Series MS400 High Power, Non-Inductive, High Temperature

High Voltage Power Resistors Series MS400 combine proprietary non-inductive resistance system, power film technology and design to achieve high stability, increased power rating to 30 Watts and high operating voltages up to 30 kV.

MS400 Power Film Resistors cover a wide resistance range from 10 $\Omega$  up to 30 M $\Omega$  and operating temperatures from –55°C to +275°C. These resistors are ideally suited for high power and high frequency applications.

Model	Wattage Rating	Max. Voltage		millimeters ± 0.50 in inches ± 0.02]
MS400.2	6.00	5'000	27.00 [1.07]	8.00 [0.32]
MS400.3	8.00	7'000	37.00 [1.46]	8.00 [0.32]
MS400.4	10.00	8'000	45.00 [1.77]	8.00 [0.32]
MS400.5	12.50	10'000	52.00 [2.05]	8.00 [0.32]
MS400.7	15.00	15'000	77.00 [3.03]	8.00 [0.32]
MS400.10	20.00	20'000	102.00 [4.02]	8.30 [0.33]
MS400.12	24.00	24'000	122.00 [4.80]	8.50 [0.34]
MS400.15	30.00	30'000	152.00 [5.98]	8.50 [0.34]



## **Characteristics**

Resistance Values	from $10\Omega$ to as high as $30M\Omega$				
Tolerances	1%, 2%, 5%, 10% (other tolerances to 0.1% on request)				
Temperature Coefficients *	50 and 100 ppm/°C (other temperature coefficients to 25 ppm/°C on request)				
Operating Temperature	-55 +275°C	(extended temperature range to 350°C available)			
Insulation Resistance	$> 10'000 \text{ M}\Omega$ 500 Volt 25 °C 75% relative humidity				
Dielectric Strength	> 1'000 Volt	00 Volt 25 °C 75% relative humidity			
Thermal Shock	$\Delta$ R/R < 0.5% or 0.5 $\Omega$ max. whichever is greater	MIL Std. 202, method 107 Cond. C	IEC 68 - 2 -14		
Overload	$\Delta$ R/R < 0.5% or 0.5 $\Omega$ max. whichever is greater	5 x Pnom, 5 sec (do not exceed max. voltage)			
Moisture Resistance	$\Delta$ R/R < 0.5% or 0.5 $\Omega$ max. whichever is greater	MIL Std. 202, method 106	IEC 68 - 2 - 3		
Load Life	$\Delta$ R/R < 0.5% or 0.5 $\Omega$ max. whichever is greater	1000 hours at rated power	IEC 115 - 1		
Encapsulation	High Temp Silicone Conformal Coating	Core Material Al <sub>2</sub> C	D <sub>3</sub> (96%)		
Lead Material	Gold Plated Copper	Resistor Material Rut	henium Oxide		

<sup>\*</sup> Temperature Coefficient referenced to 25°C,  $\Delta R$  taken at +105°C.

## **Derating Curve**

