

# OBJECTIVE DATA SHEET

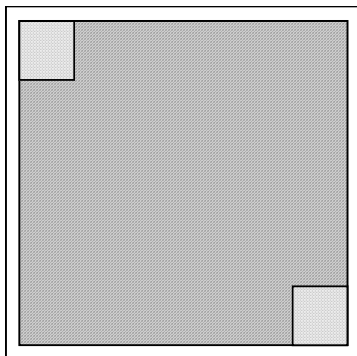
# OnChip

# TM

## High Value Thin Film Resistor Series

OnChip Devices offers the proven reliability of Tantalum Nitride in a high meg ohm resistor chip. Series TM high meg ohm resistor chips are available in values from 1 meg ohms to 20 meg ohms and tolerances to one percent.

Electrical Specifications			
Parameter	Conditions		
Temperature Coefficient of Resistance	-55°C to 125°C	±250ppm/°C	Max
Operating Voltage	-55°C to 125°C	100Vdc	Max
Power Rating (per resistor)	@ 70°C (Derate linearly to zero @ 150°C)	100mw	Max
Thermal Shock	Method 107 MIL-STD-202F	±0.5% @ΔR	Max
High Temperature Exposure	100 Hrs @ 150°C Ambient	±0.25% ΔR	Max
Moisture Resistance	Method 106 MIL-STD-202F	±0.5% ΔR	Max
Life	Method 108 MIL-STD-202F (125°C/1000hr)	±1.0% ΔR	Max
Noise	Method 308 MIL-STD-202F	-20dB	Max
Insulation Resistance	@ 25°C	1 x 10 <sup>12</sup> Ω	Min



Bonding Area

Values
From 1 meg Ω to 20 meg Ω

Mechanical Specifications	
Substrate	Silicon 10±2 mils thick
Isolation Layer	SiO <sub>2</sub> 10,000Å thick, min
Backing	Lapped (gold optional)
Metalization	Aluminium 10,000Å thick, min (15,000Å gold optional)

Packaging
Two inch square trays of 400 chips maximum is standard.

### Format

Die Size: 36±3 mils square

Bonding Pads: 4x4 mils typical

Notes
Resistor pattern may vary from one value to another.

Part Number Designation				
TM	1002	F	G	W
Series	Value	Tolerance	Bond Pads	Backing
	First 3 digits are significant value. Last digit represents number of zeros. R indicates decimal point.	F = ±1%	G = Gold	W = Gold
		G = ±2%	No Letter = Aluminium	L = Lapped
		J = ±5%		No Letter = Either
		K = ±10%		
		M = ±20%		