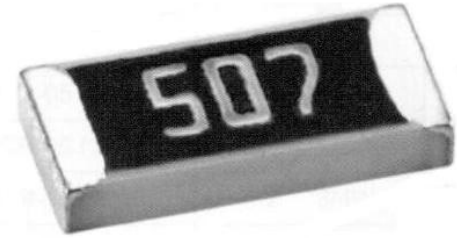


HMR High Ohmic Chip Resistor

- EXTENDED RESISTANCE RANGE - 110MΩ ~ 1GΩ
- HIGHLY RELIABLE MULTILAYER ELECTRODE CONSTRUCTION
- STANDARD PACKAGE SIZES 0805 ~ 1206
- RoHS & REACH COMPLIANT, MATTE TIN PLATED
- IDEAL FOR X-RAY EQUIPMENT, HI-Z QUARTZ AMPLIFIERS, VOLTAGE DIVIDERS AND LOW SIGNAL AMPLIFICATION CIRCUITS



POWER RATING

1/8W ~ 1/4W

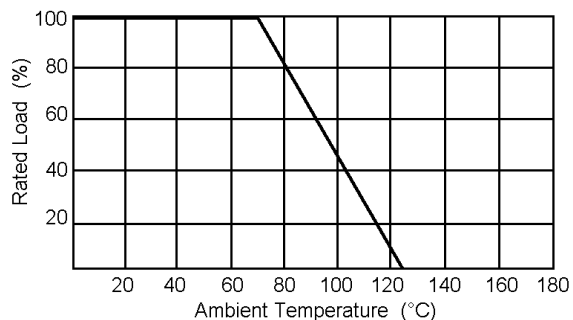
DIMENSIONS

STYLE		DIMENSIONS (mm)				
Series	Type	L	W	H	I1	I2
HRM05	0805	2.00 ± 0.10	1.25 ± 0.10	0.50 ± 0.10	0.35 ± 0.20	0.40 ± 0.20
HRM06	1206	3.10 ± 0.10	1.55 ± 0.15	0.55 ± 0.10	0.50 ± 0.25	0.50 ± 0.20

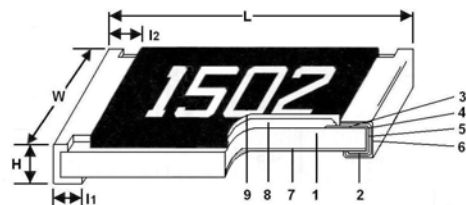
ELECTRICAL CHARACTERISTICS

Power Rating at 70°C	1/8w	1/4w
STYLE	HMR05	HMR06
Operating Temperature	-55°C ~ +125°C	
Maximum Operating Voltage	150v	200v
Maximum Overload Voltage	300v	400v
Resistance Range & ppm	110MΩ ~ 500MΩ ± 500 510MΩ ~ 1GΩ ± 1000	

POWER DERATING CURVE



CONSTRUCTION



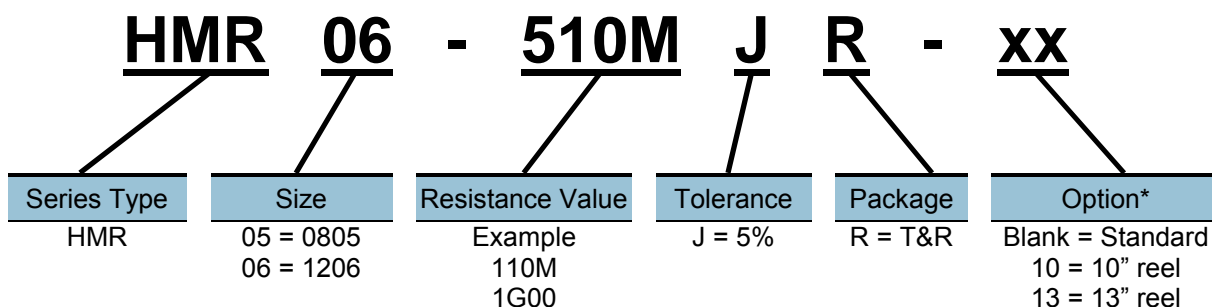
1 Alumina Substrate	4 Edge Electrode (NiCr)	7 Resistor Layer (RuO ₂ /Ag)
2 Bottom Electrode (Ag)	5 Barrier Layer (Ni)	8 Primary Overcoat (Glass)
3 Top Electrode (Ag-Pd)	6 External Electrode (Sn)	9 Marking (Epoxy)

PERFORMANCE CHARACTERISTICS

PERFORMANCE TEST	REQUIREMENT	TEST METHOD
Temperature Coefficient (T.C.R.)	As Spec	-55°C ~ +125°C (25°C is reference Temp.)
Short Time Overload	±(2.0%+0.05Ω)	RCWV x 2.5 or Max Overload Voltage for 5 sec
Endurance	±(3.0%+0.10Ω)	70°C ± 2°C, Max working voltage for 1000hr with 1.5hr "ON" and 0.5hr "OFF"
Insulation Resistance	≥10GΩ	Max overload voltage for 1 min
Damp Heat with Load	±(3.0%+0.10Ω)	40°± 2°C, 90~95 R.H., Max working voltage for 1000hr with 1.5hr "ON" and 0.5hr "OFF"
Dry Heat	±(1.5%+0.10Ω)	At +125°C for 1000 hrs
Solderability	95% minimum coverage	+245°C ± 5°C for 3 sec
Bending Strength	±(1.0%+0.05Ω)	Bending once for 5 sec 0805, 1206 : 3mm
Resistance to Soldering Heat	±(1.0%+0.05Ω)	+260°C ± 5°C for 10 sec
Voltage Proof	No breakdown or flashover	1.42 times RCWV (RMS) for 1 min
Leaching	Individual leaching area ≤5% Total leaching area ≤10%	+260°C ± 5°C for 30 sec
Rapid Change of Temperature	±(1.0%+0.05Ω)	-55°C to +125°C, 5 cycles

Reference Standards: IEC 60115-1, 60068-2-58, JIS-C 5201-1

PART NUMBER



STANDARD PACKAGING

TAPE 0805 ~ 1206 5,000 pieces - 7" reel Standard
 10,000 pieces - 10" reel
 20,000 pieces - 13" reel

LEAD FREE
 HMR Series parts are
 RoHS & REACH Compliant