

SINLOON® 超高阻值貼片電阻

MQHR Series
Super High Ohm Chip Resistance Range: 100M ~ 150G Ω

□ **FEATURE:**

- Max. resistance value: 150G Ω
- Halogen*1 and Antimony*2 free product
- *1. Cl or Br ≤ 900ppm, Cl=Br ≤ 1500ppm
- *2. Sb₂O₃ ≤ 900ppm
- Suitable for compact instrumentation, infrared rays, sensors, etc.

Figure



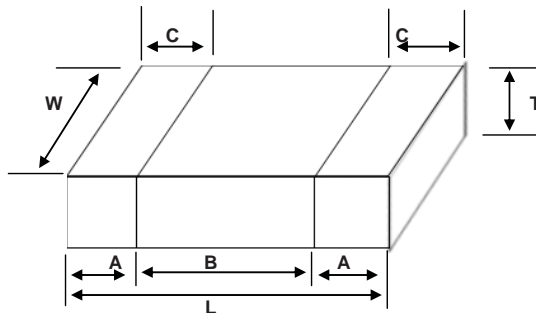
□ **ORDERING PROCEDURE**

Example: MQHR16M1G00TP (0603 1G ±20%)

Style	Size	Part No.	Tolerance	Resistance	Packing
MQRH16	1608 (0603)	MQRH16	J=±5%	e.g:	B=Bulk / 1000 pcs
MQRH20	2010 (0805)	MQRH20	K=±10%	100M=100M	TP=Paper Tape / 5000 pcs
			M=±20%	1G00=1G	
			N=±30%	10G0=10G	
			H=±50%	100G=100G	

□ **Dimension**

Style	Metric	Inch	L	W	T	B	A	C	Weight/pc
MQRH16	1608	0603	1.6±0.1	0.8 ^{+0.15} _{-0.05}	0.45±0.1	1.0±0.1	0.3±0.1	0.3±0.1	2.0mg
MQRH20	2010	0805	2.0±0.1	1.25±0.1	0.55±0.1	1.2±0.2	0.4±0.2	0.4±0.2	5.0mg



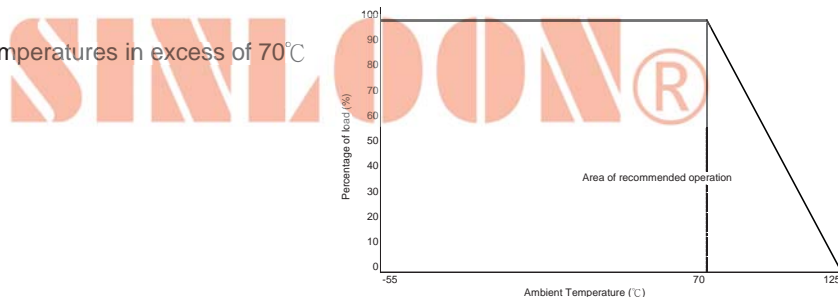
□ **ELECTRICAL DATA**

■ **Power Rating**

Style	Size	Rated Voltage	Rated Resistance	Tolerance	Temperature Coefficient of
			Range (Ω)	Resistance	Resistance 10 ⁻⁶ /°C
MQRH16	1608 (0603)	15V	100M ~ 270M	±5%	0 ~ -2,000
			100M ~ 1G	±10%	0 ~ -2,000
			100M ~ 150G	±20%;±30%;±50%.	0 ~ -2,000
MQHR0805	2012 (0805)	15V	100M ~ 1G	±5%;±10%.	±2,000
			100M ~ 10G	±20%;±30%;±50%.	±2,000
			100G ~ 150G	±20%;±30%;±50%.	±4,000
Isolation Voltage (V):			100		
Preferred Number series for resistors:			E12 (10,12,15,18,22,27,33,39,47,56,68,82)		
Category Temperature Range (°C):			-55 ~ +125/°C		

■ **Derating Curve:**

The derated values of load for temperatures in excess of 70°C shall be indicated by the curve.



※ Product specifications contained in this catalogue are subject to change at any time without notice. Please confirm specifications with yo



Performance Characteristics

Description	Requirements		Test Method JIS C5202-1990
	MQHR16	MQHR20	
Resistance	Within specified tolerance		5.1 clause Measuring voltage: 15V
Temperature characteristic of resistance	See Rating Table		5.2 clause Measuring temperature 5°C/35°C
Voltage coefficient	100MΩ ≤ R < 100GΩ: Within ±1% V 100GΩ ≤ R ≤ 150GΩ: Within ±2% V	100MΩ ≤ R ≤ 10GΩ: Within 0~ -2% V 100GΩ ≤ R ≤ 150GΩ: Within ±10% V	5.3 clause Measuring voltage: 5V/15V
Insulation resistance	At least 10T Ω		5.6 clause 100VDC 60s
Solderability	At least 95% of the terminal surface must be covered new solder.		6.11 clause Dip into 235°C solder bath for 2s
Resistance to soldering heat	100MΩ ≤ R ≤ 10GΩ: Within ±1% 10GΩ < R ≤ 150GΩ: Within ±2% No major visible damage	100MΩ ≤ R ≤ 10GΩ: Within ±1% 100GΩ ≤ R ≤ 150GΩ: Within ±5%	6.10 clause Dip into 235°C solder bath for 10s
Rapid change of temperature	100MΩ ≤ R ≤ 10GΩ: Within ±1% 10GΩ < R ≤ 150GΩ: Within ±2% No major visible damage	100MΩ ≤ R ≤ 10GΩ: Within ±1% 100GΩ ≤ R ≤ 150GΩ: Within ±5%	7.4 clause Cycle between - 55°C and +125°C for 5 cycles.
Moisture resistance property (steady state)	100MΩ ≤ R ≤ 10GΩ: Within ±2% 10GΩ < R ≤ 150GΩ: Within ±5% No major visible damage	100MΩ ≤ R ≤ 10GΩ: Within ±2% 100GΩ ≤ R ≤ 150GΩ: Within ±5%	7.5 clause 40°C, 90~95% R.H. 1000h.
Endurance at 70°C (rated load)	100MΩ ≤ R ≤ 10GΩ: Within ±3% 10GΩ < R ≤ 150GΩ: Within ±5% No major visible damage	100MΩ ≤ R ≤ 10GΩ: Within ±3% 100GΩ ≤ R ≤ 150GΩ: Within ±20%	7.1 clause Rated voltage, 1.5h "ON", 0.5h "OFF" 70°C, 1000h
Capacity	1.0 pF or less		Measuring voltage: 1V, Measuring frequency: 10K, 100K, 1MHz

PACKAGE SPECIFICATION

Style	Metric	Inch	Quantity(ea)			
			Paper Reel Tape	In Box	Carton	
MQRH16	1608	0603	5,000 Pcs	7" Reel	50K pcs	300K pcs
MQRH20	2010	0805	5,000 Pcs	7" Reel	50K pcs	300K pcs



※美隆公司產品規格及其特性參數的改變或更新恕不另行通知。

※Mayloon characteristic parameters of electronic product specification changes or updates without notice to improve。

