

**SINLOON®**

AEC-Q200 高精密金屬膜晶圓電阻

AEC-Q200 AQMMR Series

Tolerance:  $\pm 0.1\% \sim \pm 5\%$

Precision Metal Film MELF Resistor

**FEATURES**

- ◆ Low Noise
- ◆ Low T.C.R to 15ppm
- ◆ The electrode strength is firm.
- ◆ Moisture proof, Non-Combustibility
- ◆ Wide Precision Range:  $0.22\Omega \sim 5M\Omega$
- ◆ Lead (Pb)-free and **RoHS** Compliant
- ◆ Precision Tolerance Tight to  $\pm 0.1\%$ ,  $\pm 0.25\%$ ,  $\pm 0.5\%$ ,  $\pm 1\%$ .
- ◆ Compatible with lead (Pb)-free and lead containing soldering processes

Figure



(Body no marking)

**APPLICATIONS**

- ◆ Test and measuring equipment
- ◆ Industrial and medical electronics

The AQMMR- Metal film Resistor are made by depositing special treated metal film onto ceramic core in ultra high vacuum. Both ends of the core are plated with precious metal to ensure low noise and small temperature coefficient. MPM Resistor are widely applied in high fidelity stereo, electronic calculators, computers, testing instruments, meters, auto controlled equipment, military devices and aerospace equipment.

**ORDERING INFORMATION**

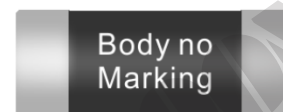
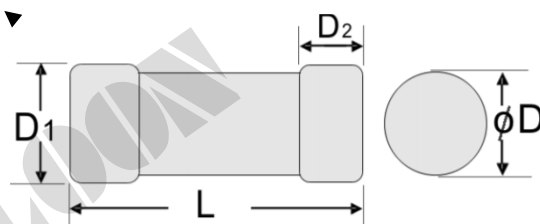
Example: V-AQMMR07NR22J (1/4W R22 15ppm  $\pm 5\%$  T/Reel)

Power 功率	Size 尺寸	Type 型號	T.C.R (ppm/°C)	Resistance (電阻值)		Tolerance 誤差值	Package 包裝	Quantity Tape Reel
				E96	E24			
1/4W	0207	V-AQMMR07	N= $\pm 15$ ppm	R22 = R22	1R = 1R0	B= $\pm 0.1\%$	Type Reel	200K Pcs
1/2Ws	0207	U-AQMMR07	C= $\pm 25$ ppm	1R = 1R00	10R=100	C= $\pm 0.25\%$		200K Pcs
			D= $\pm 50$ ppm	10R=10R0	100R=101	D= $\pm 0.5\%$		
			E= $\pm 100$ ppm	100R=100R	100R=102	F= $\pm 1\%$		
				1K = 1001	10K = 103	J= $\pm 5\%$		
				10K = 1002	100K=104			
				100K=1003	1M=105			
				1M=1004				

**DIMENSION**

Unit: mm

Type	Size	Power	L	ΦD	D <sub>1</sub>	D <sub>2</sub>
V-AQMMR07	0207	1/4W	5.9 $\pm$ 0.2	2.2 $\pm$ 0.2	2.4 $\pm$ 0.3	1.3 $\pm$ 0.2
U-AQMMR07	0207	1/2WS	5.9 $\pm$ 0.2	2.2 $\pm$ 0.2	2.4 $\pm$ 0.3	1.3 $\pm$ 0.2



SINLOON®

AEC-Q200 高精密金屬膜晶圓電阻

Tolerance: ±0.1% ~ ±5%

AEC-Q200 AQMMR Series

Precision Metal Film MELF Resistor

RATED SPECIFICATION

Type	Size	Rating Power	Maximun Voltage		Resistance Range (Ω)				
			Working	Overload	±0.1%	±0.25%	±0.5%	±1%	±5%
V-AQMMR07	0207	1/4W	200V	500V	100R-100K	100R-100K	10R-560K	1R - 5M	0.22R - 5M
U-AQMMR07	0207	1/2WS	300V	600V	100R-100K	100R-100K	10R-560K	1R - 5M	0.22R - 5M
TCR:		±15ppm; ±25ppm; ±50ppm; ±100ppm							

Rated continuous Working Voltage (RCWV)  $\approx \sqrt{POWER\_RATING \cdot RESISTANCE\_VALUE}$

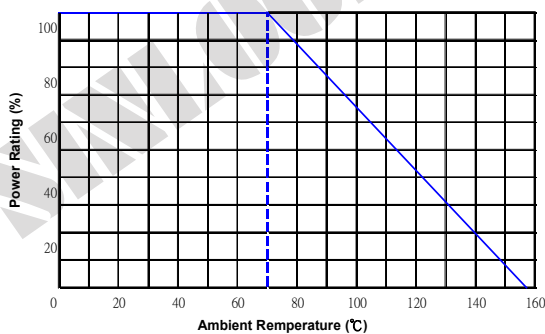
CHARACTERISTICS

Items	Test Method	Characteristics
1. Operating tem.Range		-55°C ~ +155°C
2. Temperture Coefficient	JIS-C5202 5.2	±100ppm/°C; ±50ppm/°C; ±25ppm/°C; ±15ppm/°C.
3. Short Time Overload	Rating voltage *2.5 or Max.overload voltage for 5 sec Whichever less	±(0.5%+0.05Ω)
4. Pulse Overload	Rating voltage*4 or Max.overload voltage for 10,000 cycle (1 sec [ON], 25 sec [OFF] ) Whichever Less	±(0.5%+0.05Ω)
5. Temperture Cycling	-55°C (30min.) / +125°C (30min.) for 5 cycle	±(0.5%+0.05Ω)
6. Load Life Humidity	40°C±2°C, 90%~95% RH. 1000h, 1.5h [ON] 0.5h [OFF] cycle.	±(3%+0.05Ω)
7. Load Life	70°C±2°C, 1000h, 1.5h [ON] 0.5h [OFF] cycle.	±(1%+0.05Ω)
8. Resistance to Soldering Heat	260°C±5°C, 10sec±1sec.	<10Ω±(2%+0.05Ω); >10Ω±(1%+0.05Ω)
9. Solderability	235°C±5°C, 2sec±0.5sec.	90% Coverage / Min.
10. Bending test	Holding point width 90mm, Bending 5mm.	±(0.5%+0.05Ω)
11. Non-Combustibility	The resistor shall withstand overload test in accordance with article UL-94, V-0 without producing a fire hazard.	
12. Operating Temperature Range:	-55°C ~ +155°C	

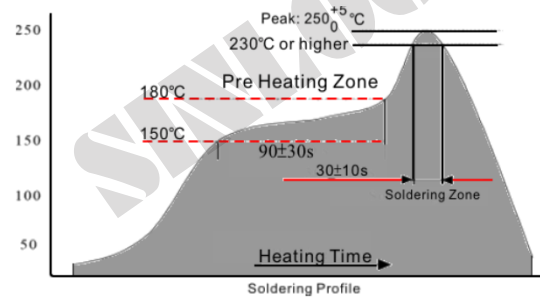
\* Rated power is maximum power which can continuously loaded at specified ambient temerrmined 70 °C, however when the ambient temperture exveeds 70 °C, rated power should be determined from the derating curve of below.

www.mayloon.com.hk

POWER DERATING CURVE



IR Reflow




SINLOON®

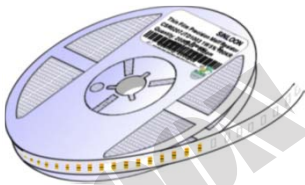
AEC-Q200 高精密金屬膜晶圓電阻  
Tolerance:  $\pm 0.1\% \sim \pm 5\%$

AEC-200 AQMMR Series  
Precision Metal Film MELF Resistor

□ PACKAGE SPECIFICATION

Part Number Type	Size 尺寸	Rated Power	Quantity (ea)			 品質承諾標誌 QUALITY COMMITMENT	
			Tape Reel		Inner Box		Carton
V-MPM07	0207	1/4W	Φ178mm	2000 pcs	20K Pcs		120K Pcs
U-MPM07S	0207	1/2WS	Φ178mm	2000 pcs	20K Pcs		120K Pcs

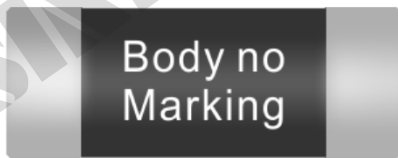
Φ178mm Tape Reel



Inner Box



Figure



Carton Package



※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。