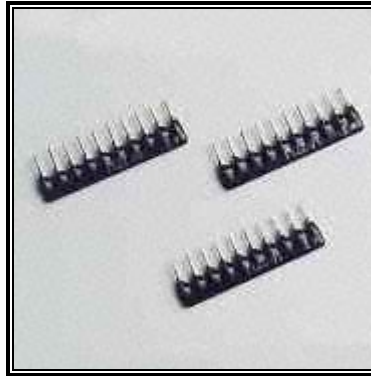




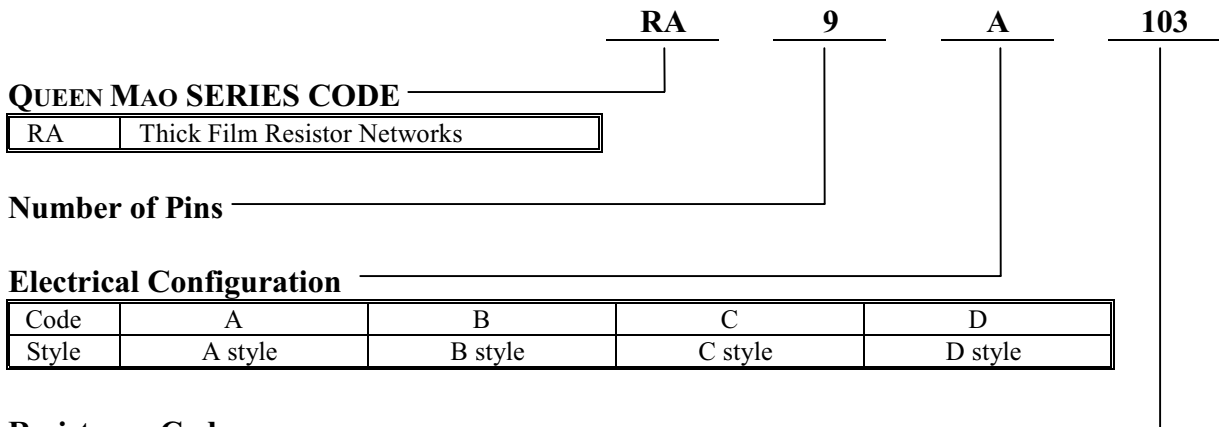
1. SCOPE

This specification applies to our products of Thick Film Resistor Networks.



2. HOW TO ORDER (QUEEN MAO PART NUMBER)

QUEEN MAO resistor networks part number are constructed as follows:



	± 2%	± 5%
Total Number of Digits	4	3
Examples	10R0 = 10 + 0 zeroes = 10Ω 1003 = 100 + 3 zeroes = 100KΩ 0000 = Jumper (0Ω)	8R2 = 8.2 + 0 zeroes = 8.2Ω 104 = 10 + 4 zeroes = 100KΩ 000 = Jumper (0Ω)



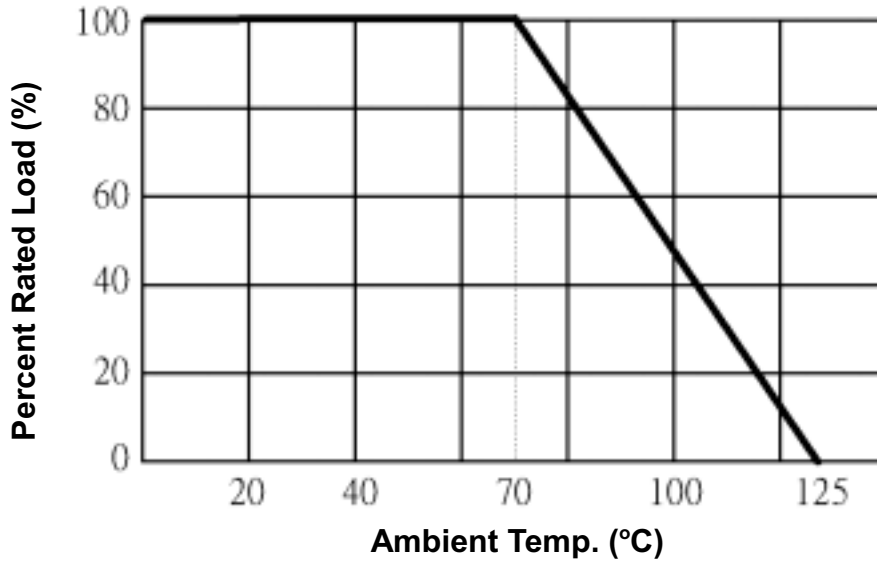
3. KEY SPECIFICATIONS/SPECIAL FEATURES

- Power: 1/8W and 1/4W; Pin number: 4-12.
- Formed from metal glaze elements screened on ceramic substrates with strong clip construction terminals
- Small in size with high precise, single line packaging
- Able to meet the needs for the increasing density of circuit assembling
- Extremely stable, accurate, and reliable
- Resistance temperature coefficient (test temp.20/-15/-40/20/60/100°C): +250PPM/°C
- Short-time overload: 2.5 times rated voltage for 5 sec.; +-(1%+0.05 ohm)
- Dielectric withstanding: test voltage 500V, 1 min.; no insulation break down
- Terminal strength:
 - Pull: 1kg at 10 sec
 - Bend: 90 °, 2 times each direction; +-(1%+0.05ohm)
- Solder-heat resistance: 260°C, 5 sec; +-(1%+0.05 ohm), no mechanical damage
- Solderability: 235°C, 5 sec; new solder shall cover at least 95%
- Temperature cycling: -40/+85°C, 5 cycles; +-(1%+0.05 ohm), no mechanical damage
- Moisture-resistance cycling: 40 cycles of -10°C, 2 hrs and +70°C, 90%RH, 2 hrs
- Load life in moisture: rated voltage with cycle of 1.5 hrs on and 0.5 hrs. off for 1,000 hrs at 40°C, 95%RH
- Load life: rated voltage with the cycle of 1.5 hrs on and 0.5 hrs off for 1,000 hrs at 70°C

4. CHARACTERISTIC PERFORMANCE

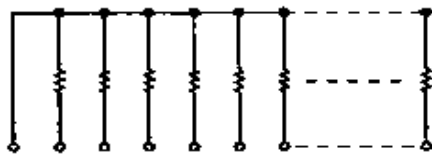
Description	Requirement	Test Method (JIS C 5202)
Resistance Value	Within specified tolerance	Section 5.1
Resistance Temp. Coefficient	± 250 PPM/°C	Section 5.2 Test temperature 20/-15/-40/20/60/100°C
Short-time Overload	± (1% + 0.05Ω)	Section 5.5-A 2.5 times rated voltage for 5 seconds
Dielectric Withstanding	No insulation break down	Section 5.7-E (metal ball) Test voltage: 500V Duration: 1 minute
Terminal Strength	± (1% + 0.05Ω) No end cap shall loosen and No lead wire shall break	Pull: Section 6.1-(1), 1Kg, 10 seconds Bend: Section 6.1-(4), 90 deg., 2 times each direction.
Solder-heat Resistance	± (1% + 0.05Ω) No mechanical damage	Section 6.4 260°C, 5 seconds
Solderability	New solder shall cover at least 95%	Section 6.5 235°C, 5 seconds
Temperature Cycling	± (1% + 0.05Ω) No mechanical damage	Section 7.4 -40/+85°C, 5 cycles
Moisture-resistance Cycling	± (3% + 0.1Ω) No mechanical damage	40 cycles of -10°C, 2 hours and +70°C, 90% RH, 2 hours
Load Life in Moisture	± (5% + 0.1Ω)	Section 7.9 Rated voltage with the cycle of 1.5 hours-on and 0.5 hours-off for 1,000 hours at 40°C, 95% RH
Load Life	± (5% + 0.1Ω)	Section 7.10 Rated voltage with the cycle of 1.5 hours-on and 0.5 hours-off for 1,000 hours at 70°C

5. DERATING CURVE

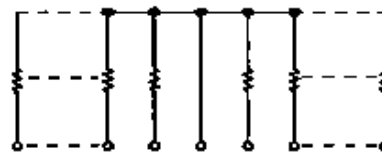


6. STANDARD INTERNAL CIRCUITS

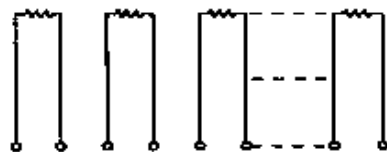
A STYLE



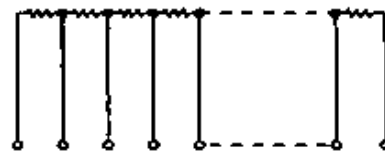
C STYLE



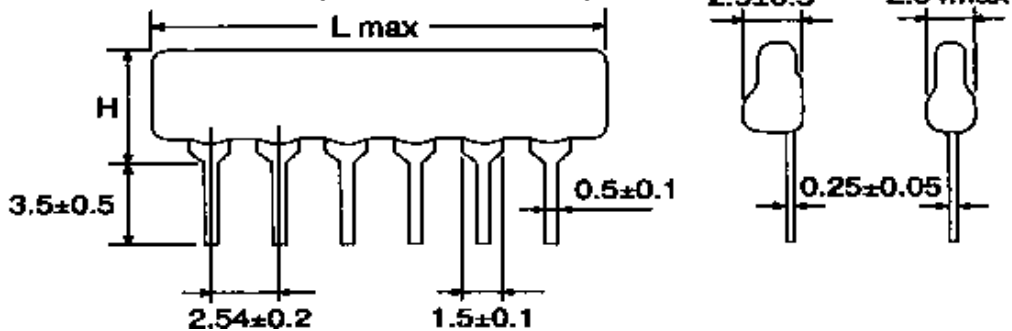
B STYLE



D STYLE



DIMENSIONS (STANDARD TYPE)





7. DIMENSIONS

MIL	RA 1/8	RA 1/4
Style	A, B, C, D	A, B, C, D
Power Rating	0.125W	0.25W
Dimensions (mm)		
Elements	3-11 (A, C, D); 2-6 (B)	3-13 (A, C, D); 2-7 (B)
Pin Number	4-12	4-12
L Max.	Pin Number x 2.54 + 0.25	Pin Number x 2.54 + 0.25
H.	5.08 Max.	7.0 Max
Max. Working Voltage	100 V.	200 V.
Max Overload Voltage	150 V.	300 V.
Resistance Range G (±2%), J (±5%)	22 – 1MΩ E24 Series	22 – 1MΩ E24 Series