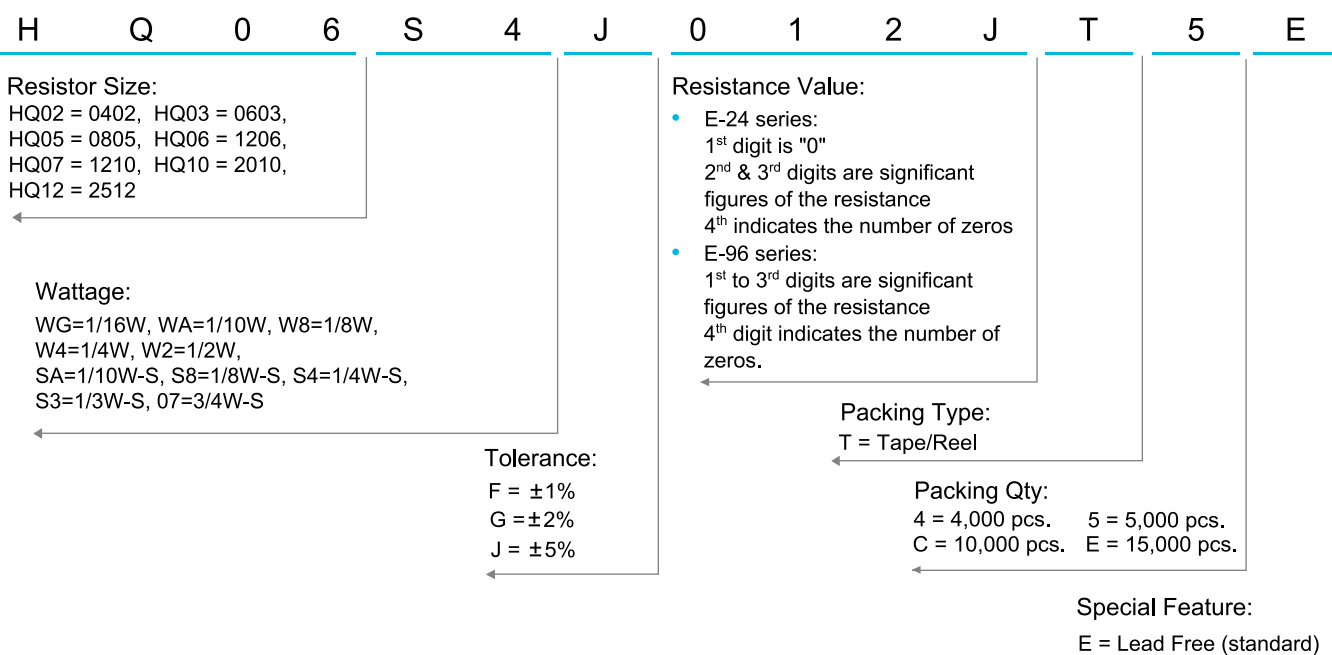


AEC-Q200 Version Chip Resistor

Performance Specification

Test Item	Test Methods	Determine Specification
Temperature Coefficient	Measure between: -55 °C ~ +125 °C	1Ω ≤ R ≤ 10Ω : ±400PPM/°C 10.1Ω < R ≤ 100Ω : ±200PPM/°C 100Ω < R ≤ 10MΩ : ±100PPM/°C
Short Time Overload	2.5 x rated voltage or Max. Overload Voltage whichever is lower for 5 seconds, then check the resistance.	±1% : ±(1.0% + 0.1Ω)Max ±5% : ±(2.0% + 0.1Ω)Max
Terminal Bending	Duration: 60s ± 5s, then check the resistance.	±(1.0% + 0.05Ω)Max
Solderability	245 ± 3 °C, 2 ~ 3s	95% coverage Min
Soldering Heat	260 ± 5 °C, 10 ± 1s	±(1.0% + 0.05Ω)Max
Moisture Resistance	25 °C ~ 65 °C, 90 ~ 100%RH, 2.5H, 65 °C 90 ~ 100%RH, 3H, 65 °C ~ 25 °C, 80 ~ 100%RH, 2.5H, 10 cycles, Measurement at 24 hours after test conclusion. MIL-STD-202 Method 106	±1% : ±(1.0% + 0.1Ω)Max ±5% : ±(3.0% + 0.1Ω)Max
Biased Humidity	10% rated power, 85 °C/85%RH, 1000H, Measurement at 24 hours after test conclusion. MIL-STD-202 Method 103	±1% : ±(1.0% + 0.1Ω)Max ±5% : ±(3.0% + 0.1Ω)Max
Dielectric Withstanding Voltage	Resistor shall be clamped in the trough of 90 metallic V-block and shall be tested at AC potential respectively specified in the given list of each product type for 60 ~ 70s.	No evidence of flashover, mechanical damage, arcing or insulation breakdown.
Temperature Cycling	-55 ± 3 °C 30min ~ normal temperature 10min-15min ~ 155 ± 2 °C 30min ~ normal temperature 10min-15min 100 cycles, Measurement at 24 hours after test conclusion. JESD22 Method JA-104	±1% : ±(1.0% + 0.1Ω)Max ±5% : ±(1.0% + 0.1Ω)Max
Load Life	125 °C, at RCWV or Max. Working Voltage whichever less, 1,000 hours (1.5 hours "ON", 0.5 hours "OFF") Measurement at 24 ± 2 hours after test conclusion. MIL-STD-202 Method 108	±1% : ±(1.0% + 0.1Ω)Max ±5% : ±(3.0% + 0.1Ω)Max
Anti-Sulfurized test	H ₂ S 3 ~ 5ppm, 50 °C ± 2 °C, 91% ~ 93%RH, 1000H	±5% : ±(5.0% + 0.1Ω)Max ±1% : ±(1.0% + 0.1Ω)Max

Ordering Procedure: Ex.: HQ06, 1/4W-S, 5%, 1.2 Ω, T/R5000

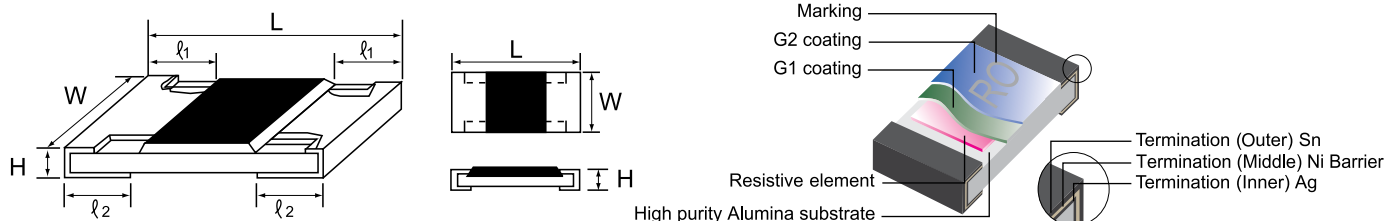


AEC-Q200 Version Chip Resistor

Features

- The relevant provisions of the AEC-Q200.
- Suitable for reflow & wave soldering.
- Application car.

Dimension



Type	Max Working Voltage	Max Overload Voltage	Dielectric	Resistance Value of Jumper	Rate Current of Jumper	Max Current of Jumper	Operating Temperature
HQ02	50V	100V	100V	< 50mΩ	1A	2A	-55 ~ +155°C
HQ03	50V	100V	100V	< 50mΩ	1A	2A	
HQ05	150V	300V	300V	< 50mΩ	2A	5A	
HQ06	200V	400V	400V	< 50mΩ	2A	10A	
HQ07	200V	500V	500V	< 50mΩ	2A	10A	
HQ10	200V	500V	500V	< 50mΩ	2A	10A	
HQ12	200V	500V	500V	< 50mΩ	2A	10A	

Type	Power (70°C)	L (mm)	W (mm)	H (mm)	l1 (mm)	l2 (mm)	Resistance Range 1%(E96), 5%(E24)
HQ02	1/16W	1.00±0.10	0.50±0.05	0.35±0.05	0.20±0.10	0.25±0.10	1Ω ~ 10MΩ
HQ03	1/16W (1/10W-S)	1.60±0.10	0.80±0.10	0.45±0.10	0.30±0.20	0.30±0.20	
HQ05	1/10W (1/8W-S)	2.00±0.15	1.25 ^{+0.15} _{-0.10}	0.55±0.10	0.40±0.20	0.40±0.20	
HQ06	1/8W (1/4W-S)	3.10±0.15	1.55 ^{+0.15} _{-0.10}	0.55±0.10	0.45±0.20	0.45±0.20	
HQ07	1/4W (1/3W-S)	3.10±0.10	2.60±0.20	0.55±0.10	0.50±0.25	0.50±0.20	
HQ10	1/2W (3/4W-S)	5.00±0.10	2.50±0.20	0.55±0.10	0.60±0.25	0.50±0.20	
HQ12	1W	6.35±0.10	3.20±0.20	0.55±0.10	0.60±0.25	0.50±0.20	

Derating Curve

