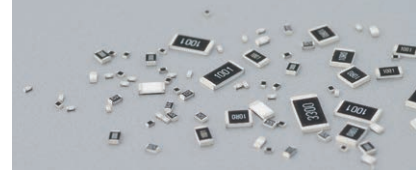


Feature

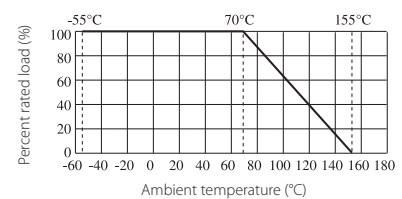
- Tolerance: $\pm 0.5\%$ ~ $\pm 5\%$
- Application automobile industry, comply with the relevant provisions of AEC-Q200.
- Anti-sulfurized performance: H₂S 3~5ppm, 50°C \pm 2°C, 91%~93%RH, 1000H
- Resistance range: 1 Ω ~10M Ω , 0 Ω
- Operating temperature range: -55°C ~+155°C
- Stable electrical capability, high reliability
- Suit for reflow & wave soldering
- RoHS complaint



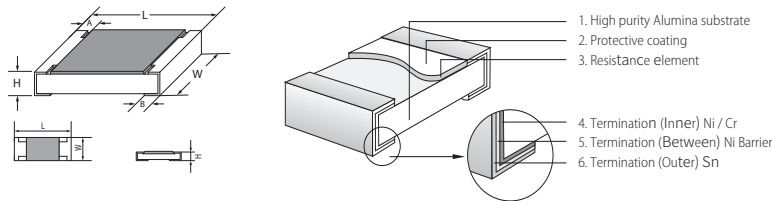
Application

- Intelligent home appliances
- High-end computer
- Medical equipment
- Industrial equipment
- Outdoor electronic application

Derating Curve



Figures



Dimension (mm)

TType	L	W	H	A	B
CQ01 (0201)	0.60 \pm 0.03	0.30 \pm 0.03	0.23 \pm 0.03	0.12 \pm 0.05	0.15 \pm 0.05
CQ02 (0402)	1.00 \pm 0.10	0.50 \pm 0.05	0.35 \pm 0.05	0.20 \pm 0.10	0.25 \pm 0.10
CQ03 (0603)	1.60 \pm 0.10	0.80 \pm 0.10	0.45 \pm 0.10	0.30 \pm 0.20	0.30 \pm 0.20
CQ05 (0805)	2.00 \pm 0.15	1.25 ^{+0.15} _{-0.10}	0.55 \pm 0.10	0.40 \pm 0.20	0.40 \pm 0.20
CQ06 (1206)	3.10 \pm 0.15	1.55 ^{+0.15} _{-0.10}	0.55 \pm 0.10	0.45 \pm 0.20	0.45 \pm 0.20
CQ07 (1210)	3.10 \pm 0.10	2.60 \pm 0.20	0.55 \pm 0.10	0.50 \pm 0.25	0.50 \pm 0.20
CQ10 (2010)	5.00 \pm 0.10	2.50 \pm 0.20	0.55 \pm 0.10	0.60 \pm 0.25	0.50 \pm 0.20
CQ12 (2512)	6.35 \pm 0.10	3.20 \pm 0.20	0.55 \pm 0.10	0.60 \pm 0.25	0.50 \pm 0.20

Specification

Type	Power (70°C)	Tolerance	Resistance Range	Max Working Voltage	Max Overload Voltage	Dielectric With-standing Voltage	Resistance Value of Jumper	Rated Current of Jumper	Max. Current of Jumper	Operating Temperature Range
CQ01(0201)	1/20W	$\pm 0.5\%$ $\pm 1\%$ $\pm 2\%$ $\pm 5\%$	0 Ω 1 Ω ~10M Ω	25V	50V	/	<50m Ω	0.5A	1A	-55~+155°C
CQ02(0402)	1/16W			50V	100V	100V	<50m Ω	1A	2A	
CQ03(0603)	1/10W			75V	150V	300V	<50m Ω	1A	2A	
CQ05(0805)	1/8W			150V	300V	500V	<50m Ω	2A	5A	
CQ06(1206)	1/4W			200V	400V	500V	<50m Ω	2A	10A	
CQ07(1210)	1/2W			200V	500V	500V	<50m Ω	2A	10A	
CQ10(2010)	3/4W			200V	500V	500V	<50m Ω	2A	10A	
CQ12(2512)	1W			200V	500V	500V	<50m Ω	2A	10A	

Performance Specification

Test Item	Reference standard	Test Methods	Evaluation Criteria
Temperature Coefficient of Resistance	MIL-STD-202 Method 304	Measure between: -55°C ~+155°C	CQ01: $1\Omega \leq R \leq 10\Omega$: -100~+350ppm/°C >10Ω: ±200ppm/°C CQ02-CQ12: $1\Omega \leq R \leq 10\Omega$: ±200ppm/°C >10Ω: ±100ppm/°C
Pre- and Post-Stress Electrical Test (Short time Overload)	AEC-Q200 TEST 1 IEC60115 4.13	2.5x Rated voltage or Max. Overload Voltage whichever is lower for 5 seconds, then check the resistance.	±1%: ±(1.0%+0.05Ω) ±5%: ±(2.0%+0.05Ω)
Biased Humidity	AEC-Q200 TEST 7 MIL-STD-202 Method 103	1000 hours 85°C/85%RH. Note: Specified conditions:10% of operating power. Measurement at 24±4 hours after test conclusion.	±1%: ±(1.0%+0.05Ω) ±5%: ±(3.0%+0.05Ω)
Operational Life	AEC-Q200 TEST 8 MIL-STD-202 Method 108	1,000 hours at 125°C, applied de-rated (36%) power of continuous working voltage, 1.5 hours on, 0.5 hour off.	±1%: ±(1.0%+0.1Ω) ±5%: ±(3.0%+0.1Ω)
Resistance to Soldering Heat	AEC-Q200 TEST 15 MIL-STD-202 Method 210	Condition B No pre-heat of samples. Note: Single Wave Solder - Procedure 2 for SMD and Procedure 1 for Leaded with solder within 1.5mm of device body.	±(1.0%+0.05Ω)
Solderability	AEC-Q200 TEST 18 J-STD-002	SMD. Electrical test not required. Magnification 50 X. Conditions: 1. Baking 4 hours@155°C dry heat, dipping @ 245±3°C for 5±0.5 second. 2. Steam aging 8 hours, dipping @ 260±3°C for 30±0.5 second.	Coverage must be over 95%.
Board Flex	AEC-Q200 TEST 21 AEC-Q200-005	Bending 3mm(CQ01-CQ05)/2mm(CQ06-CQ12)for 60±5sec	±(1.0%+0.05Ω)
Sulfuration test		H ₂ S 3~5PPM 50°C±2°C 91%~93% RH 1000H	±5%: ±(5.0%+0.05 Ω) ±1%: ±(1.0%+0.05 Ω)

Ordering Procedure (Example: CQ06 1/4W 5% 1.2 Ω T/R-5000)

