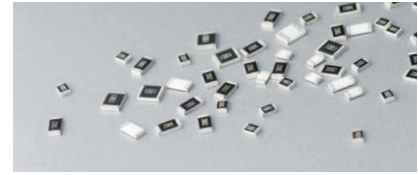
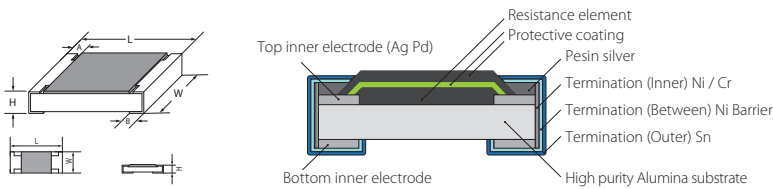


Feature

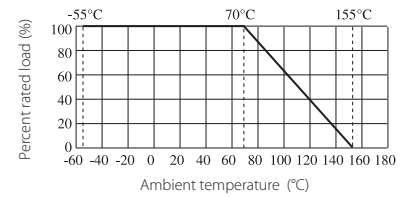
- Excellent Anti-Sulfurized
- AEC-Q200 qualified
- Suitable for reflow & wave soldering
- RoHS complaint



Figures



Derating Curve



Specification

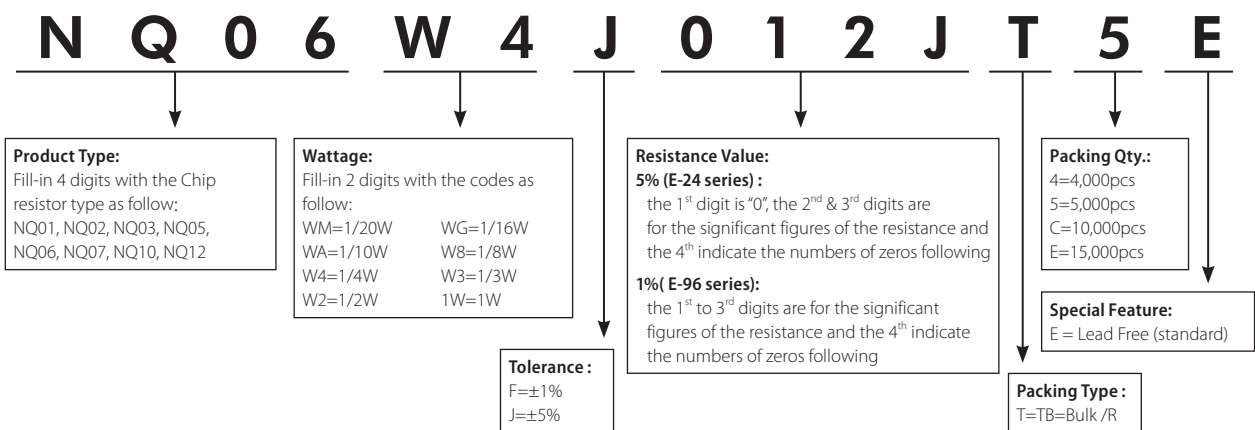
Type	Size	Max Working Voltage	Max Overload Voltage	Dielectric Withstanding Voltage	Resistance Value of Jumper	Rated Current of Jumper	Max. Overload Current of Jumper	Operating Temperature
NQ01	0201 (0603)	25V	50V	/	<50mΩ	0.5A	1A	-55~+155°C
NQ02	0402 (1005)	50V	100V	100V	<50mΩ	1A	2A	
NQ03	0603 (1608)	75V	150V	300V	<50mΩ	1A	2A	
NQ05	0805 (2012)	150V	300V	500V	<50mΩ	2A	5A	
NQ06	1206 (3216)	200V	400V	500V	<50mΩ	2A	10A	
NQ07	1210 (3225)	200V	500V	500V	<50mΩ	2A	10A	
NQ10	2010 (5025)	200V	500V	500V	<50mΩ	2A	10A	
NQ12	2512 (6432)	200V	500V	500V	<50mΩ	2A	10A	

Type	Size	Power (70°C)	L (mm)	W (mm)	H (mm)	A (mm)	B (mm)	Resistance Range 1%(E96), 5%(E24)
NQ01	0201 (0603)	1/20W	0.60±0.03	0.30±0.03	0.23±0.03	0.12±0.05	0.15±0.05	1Ω~10M Ω
NQ02	0402 (1005)	1/16W	1.00±0.10	0.50±0.05	0.35±0.05	0.20±0.10	0.25±0.10	
NQ03	0603 (1608)	1/10W	1.60±0.10	0.80±0.10	0.45±0.10	0.30±0.20	0.30±0.20	
NQ05	0805 (2012)	1/8W	2.00±0.15	1.25 ^{+0.15} _{-0.10}	0.55±0.10	0.40±0.20	0.40±0.20	
NQ06	1206 (3216)	1/4W	3.10±0.15	1.55 ^{+0.15} _{-0.10}	0.55±0.10	0.45±0.20	0.45±0.20	
NQ07	1210 (3225)	1/2W	3.10±0.10	2.60±0.20	0.55±0.10	0.50±0.25	0.50±0.20	
NQ10	2010 (5025)	3/4W	5.00±0.10	2.50±0.20	0.55±0.10	0.60±0.25	0.50±0.20	
NQ12	2512 (6432)	1W	6.35±0.10	3.20±0.20	0.55±0.10	0.60±0.25	0.50±0.20	

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	NQ01: 1Ω≤R≤10Ω: -100~+350ppm/°C >10Ω: ±200ppm/°C NQ02-NQ12: 1Ω≤R≤10Ω: ±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(NQ01-NQ05)/2mm(NQ06-NQ12)for 60±5sec	±(1.0%+0.05Ω)
Anti-Sulfurized test		Soaked in industrial oil with sulfur substance 3.5% contained 105°C ±3°C 500h	±(5%+0.05Ω)
Anti-Sulfurized test	ASTMB-809-95	Sulfur (Saturated vapor) • Test temp.: 50±2°C • Relative humidity: 86~90%RH • Test time: 1000h	±(1%+0.05Ω)

Ordering Procedure (Example: NQ06 1/4W 5% 1.2 Ω T/R-5000)



Remark: For more details, please check page 135, Part No. System