

Type 24Q(J)

6125 Fast-Acting SMD Fuses

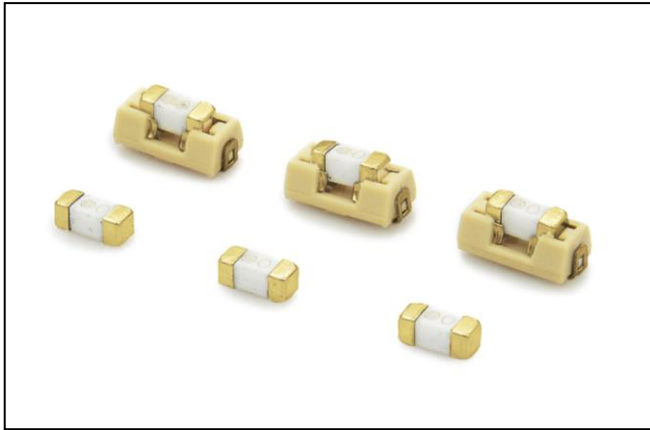


Description

24Q(J) Series are the fuses set the industry standard for performance, reliability and quality. The solder-free design provides excellent on-off and temperature cycling characteristics during use and also makes our SMD fuses more heat and shock tolerant than typical subminiature fuses.

Features

- Rapid interruption of excessive current
- Compatible with reflow and wave solder
- One time positive disconnect
- Lead Free and Halogen free material



Agency Approvals.

Safety Agency	Agency File Number	Ampere Range Volt@I.R.ABILITY
	E485357	25A~40A 500A@72V DC 50A~60A 300A@72V DC

Electrical Characteristics for Series

Rating Current	100% of Ampere Rating	300% of Ampere Rating
25A~60A	4 Hour, Min.	5Sec., Max.

Electrical Characteristic Specifications by Item

Part No.	Rated Voltage	Rated Current	Breaking Capacity (A)	Melting Integral 10In min(A ² S)	Alpha Mark	Nominal Cold Resistance(mΩ)	Approvals
							cURus
24Q2250	72VDC	25A	500A@72V DC	380	25	2.1	•
24Q2300		30A		540	30	1.1	•
24Q2400		40A		960	40	0.71	•
24Q2500		50A	300A@72V DC	1050	50	0.65	•
24Q2600		60A		1250	60	0.55	•

* DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source)

* DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25 degrees

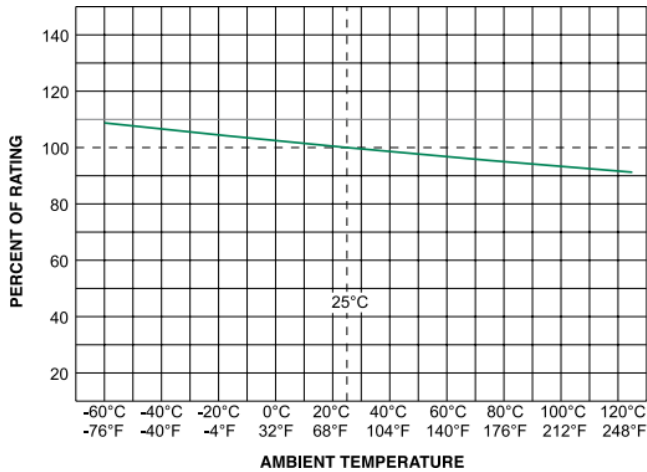
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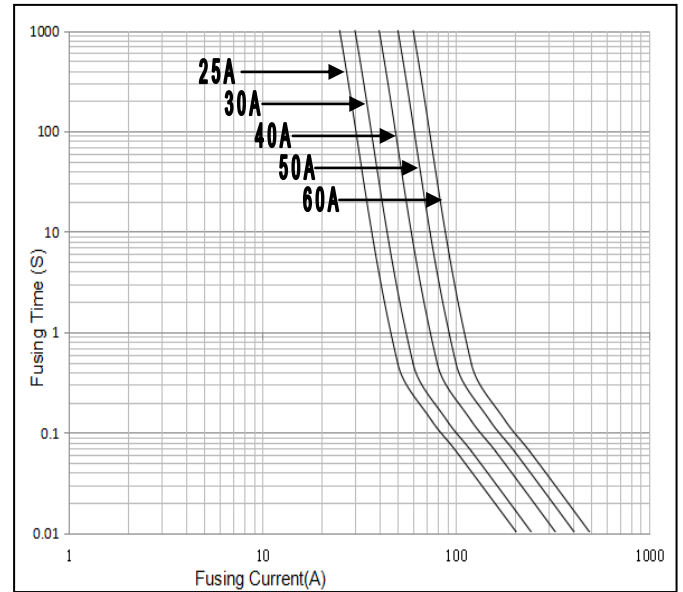


Temperature Re-rating Curve

- * Normal ambient temperature: $23 \pm 3^\circ\text{C}$
- * Operating temperature: $-55 \sim +125^\circ\text{C}$, with proper correction factor applied

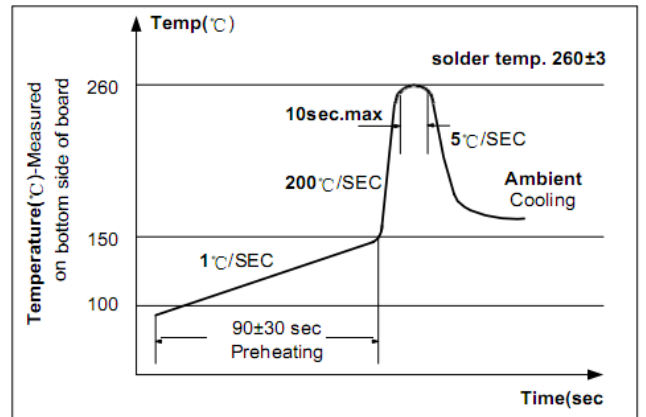


Average Time Current Curves



Soldering Parameters

Reflow Condition		Pb-Free assembly
Pre Heat	-Temperature Min($T_{s(min)}$)	150°C
	-Temperature Max($T_{s(max)}$)	200°C
	-Time (Min to Max)(t_s)	60-180 secs
Average ramp up rate (Liquidus Temp(T_L) to peak)		5°C/second max
Ts(max) to T_L Ramp-up rate		5°C/second max
Reflow	-Temperature(T_L)(liquidus)	217°C
	-Temperature(t_L)	60-150 seconds
Time within 5°C of actual peak Temperature(t_p)		20-40 seconds
Ramp-down Rate		5°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes Max.
Do not exceed		260°C



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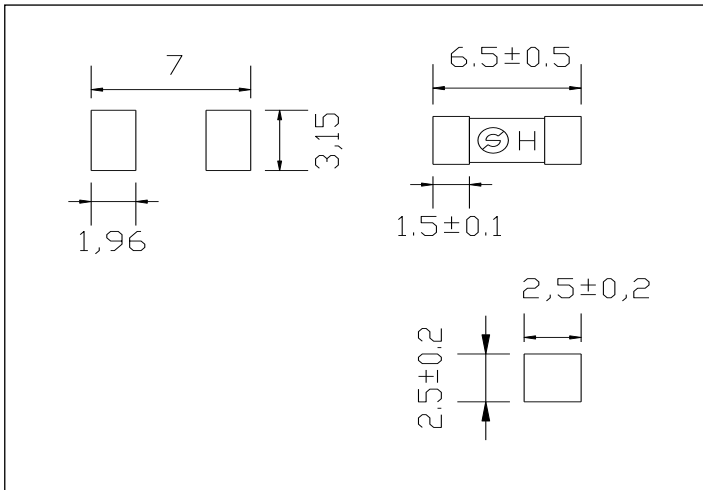


Product Characteristics

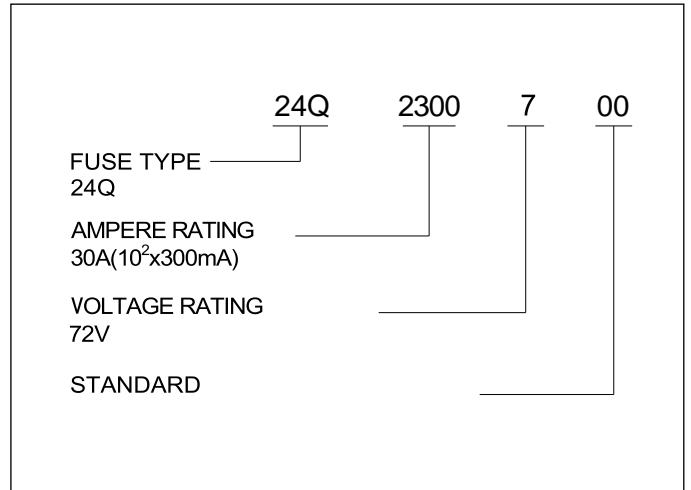
Materials	Body: Ceramic Terminations: Gold-plated Caps
Product Marking	Brand, Amperage Rating
Operating Temperature	-55°C to 125°C
Moisture Sensitivity Level	Level 1, J-STD-020
Solderability	MIL-STD-202, Method 208
Insulation Resistance (after Opening)	MIL-STD-202, Method 302, Test Condition A (10,000 ohms minimum)

Thermal Shock	MIL-STD-202, Method 107, Test Condition B, 5 cycles, -65°C to 125°C, 15 minutes @ each extreme
Mechanical Shock	MIL-STD-202, Method 213, Test I: Deenergized. 100G's pk amplitude, sawtooth wave 6ms duration, 3 cycles XYZ+xyz = 18 shocks
Vibration	MIL-STD-202, Method 201: 0.03" amplitude, 10-55 Hz in 1 min. 2hrs each XYZ=6hrs
Moisture Resistance	MIL-STD-202, Method 106, 10 cycles
Salt Spray	MIL-STD-202, Method 101, Test Condition B (48hrs)
Resistance to Soldering Heat	MIL-STD-202, Method 210, Test condition B (10 sec at 260°C)

Mechanical Dimensions (Unit:mm)



Ordering Information



Packaging

Packaging Option	Packaging Specification	Quantity
24Q(J)	tape-and-reel	1000PCS