

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	⊕ 25A	2.1	•
24Q2300		30A		540	⊕ 30A	1.1	•
24Q2400		40A		960	⊕ 40A	0.71	•
24Q2500		50A	300A@72V DC	1050	⊕ 50A	0.65	•
24Q2600		60A		1250	⊕ 60A	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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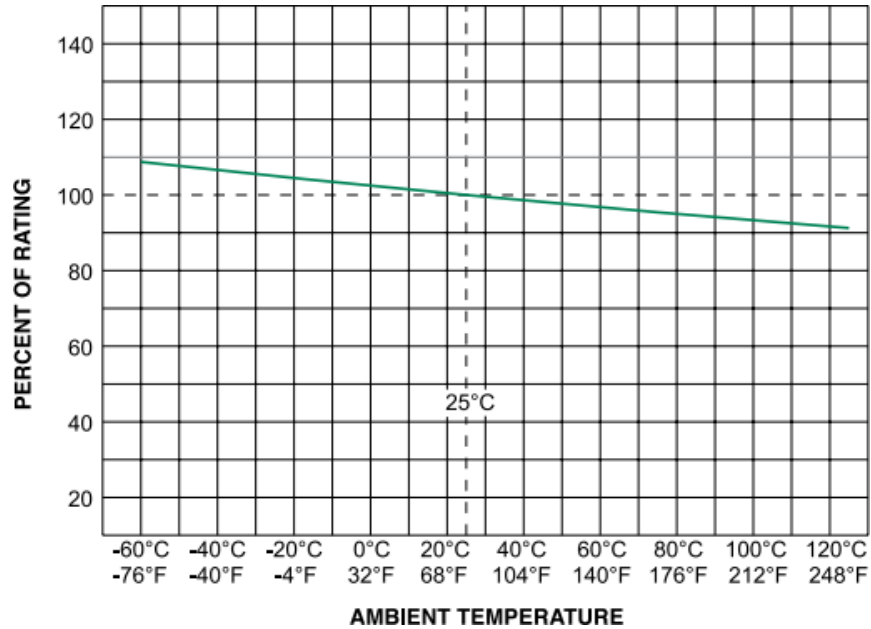
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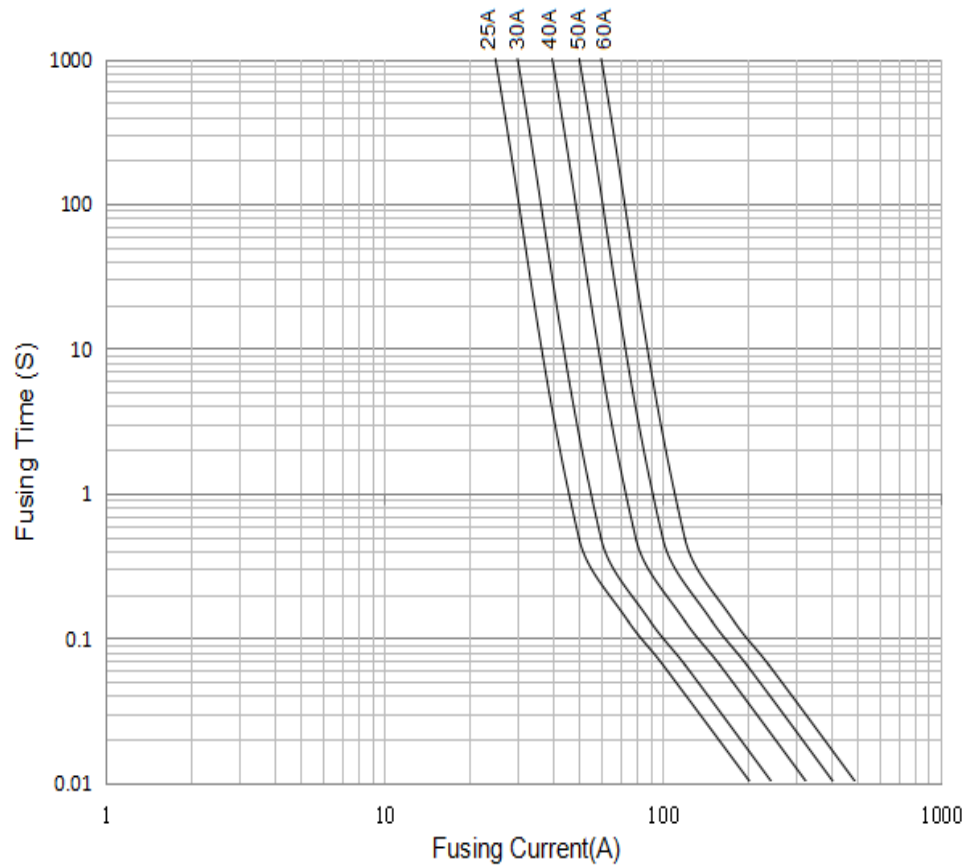
Temperature Re-rating Curve

* 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



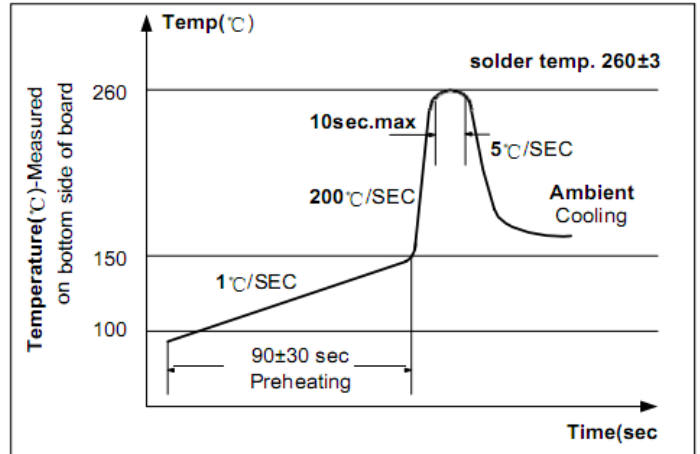
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Soldering Parameters

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



Product Characteristics

Materials	Body: Ceramic Terminations: Gold-plated Caps
Soldering Parameters	260℃ ≤ 10 sec. (Wave Soldering) 350℃ ≤ 3 sec. (Hand Soldering)
Soldering Peak (Wave Soldering)	260℃ ≤ 10 sec. 350℃ ≤ 5 sec.

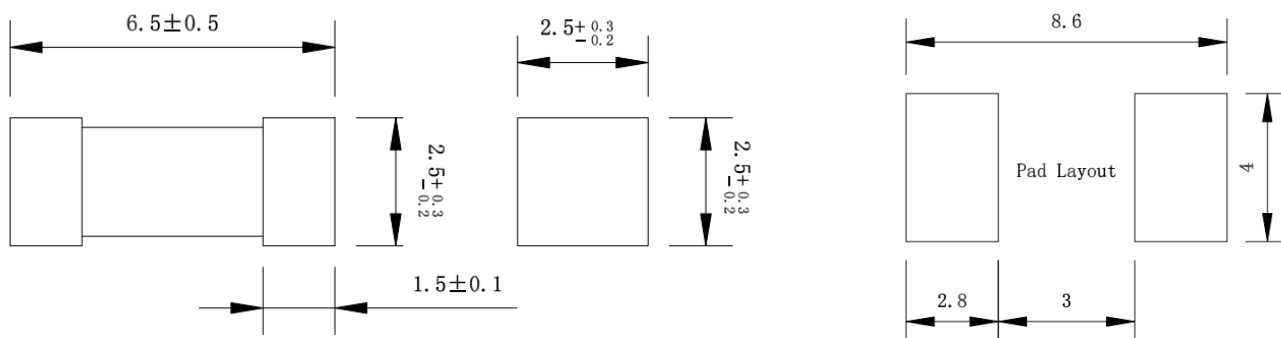
Operating Temperature	-55℃ to +125℃ (consider de-rating)
Stock Condition	+10℃ to +60℃ Relative humidity ≤ 75% yearly Average, without dew, maximum Value for 30 days-95%
Vibration Resistance	24 cycles at 15 min. each (60068-6) 10-60Hz at 0.75mm amplitude 60-2000Hz at 10g acceleration

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Mechanical Dimensions (Unit:mm)



Part Number System

24Q	2300	7	00	J
Fuse Type	Ampere Rating($10^2 \times 300\text{mA} = 30\text{A}$)	7:DC72V	Standards and specifications	Gold plating

Packaging

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

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