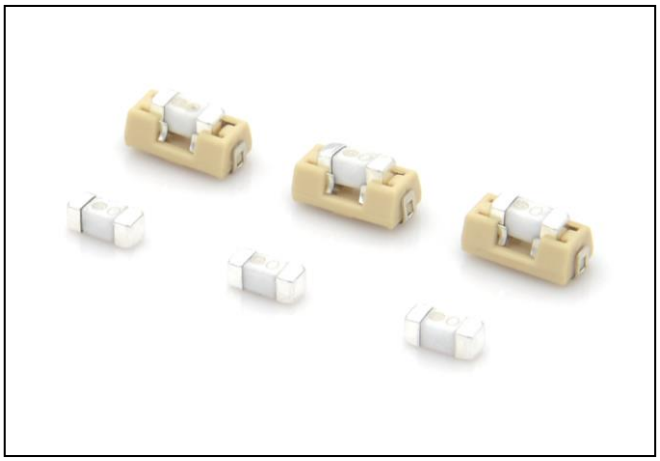
Type 24Q

6125 High Inrush SMD Fuses



Description

24Q 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 SMD 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
cURus	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^2S)	Alpha Mark	Nominal Cold Resistance(m Ω)	Approvals
							cURus
24Q2250	72VDC	25A	500A@72V DC	418	*25*	2.1	●
24Q2300		30A		594	*30*	1.1	●
24Q2400		40A		1120	*40*	0.71	●
24Q2500		50A	300A@72V DC	1155	*50*	0.65	●
24Q2600		60A		1375	*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

Rev: A Feb.2022

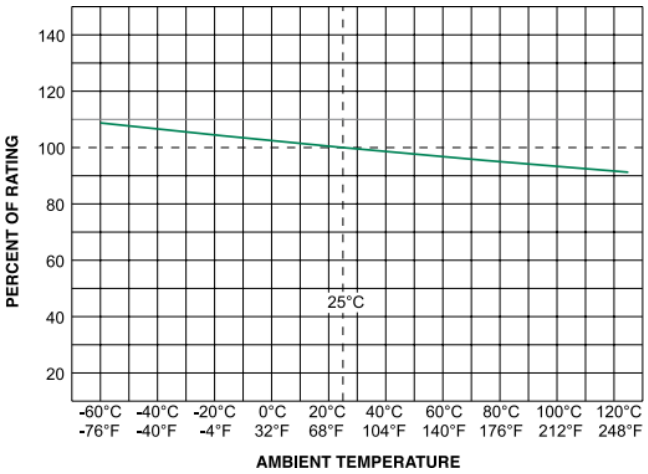
Type 24Q

6125 High Inrush SMD Fuses

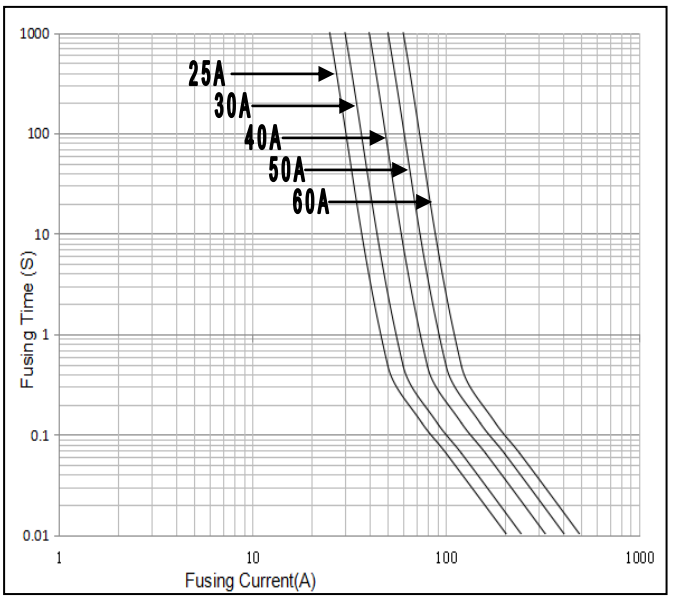
Temperature Re-rating Curve

*Normal ambient temperature: 23±3℃

*Operating temperature: -55 ~+125℃,
with proper correction factor applied

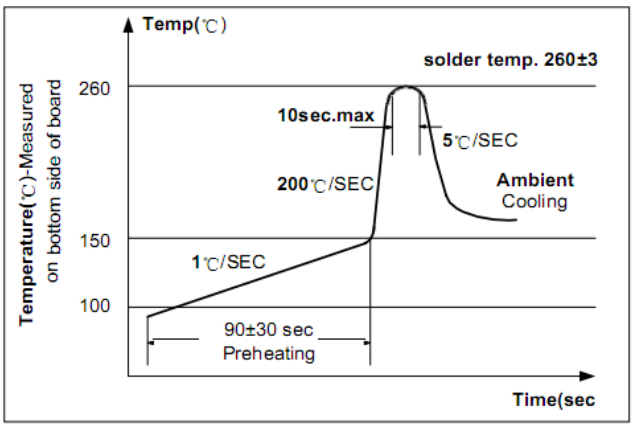


Average Time Current Curves



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)	60-180 secs
Average ramp up rate (Liquidus Temp(T_L)to peak		5℃/second max
Ts(max)to T_L Ramp-up rate		5℃/second max
Reflow	-Temperature(TL)(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 pesk Temperature (T_p)		8 minutes Max.
Do not exceed		260℃



Rev: A Feb.2022

Type 24Q

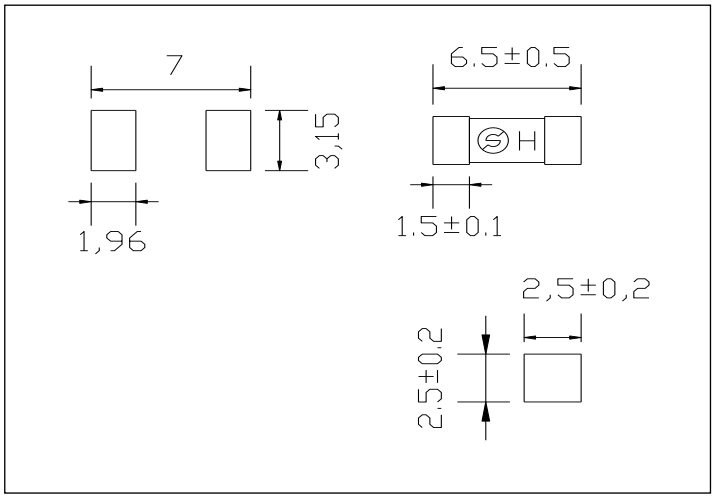
6125 High Inrush SMD Fuses

Product Characteristics

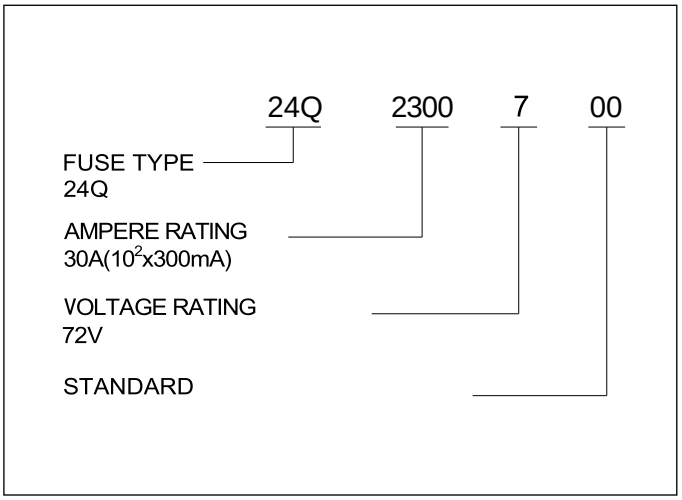
Materials	**Body:** Ceramic **Terminations:** Gold-plated Caps
Product Marking	Brand, Amperage Rating
Operating Temperature	-55°C to 125°C
Moisture Sensitivity Level	Level 1, J-STD-020
Solderability	MIL-STD-202, Method 208
Insulation Resistance (after Opening)	MIL-STD-202, Method 302, Test Condition 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	tape-and-reel	1000pcs

Rev: A Feb.2022