Fast-Acting SMD Fuses
0603

multicomp PRO

RoHS Compliant

Description

The SMD fuses stand out due to their ultra-small size and excellent electrical performance, reliability and quality. The solder-free design provides outstanding on-off and temperature cycling characteristics during operation and also makes our chip fuses more heat and shock tolerant than typical subminiature fuses.

Applications

Industrial Products such as cellphones, DVD players, battery packs, hard disk drives and digital cameras.

Features

- Pass the AEC-Q200 automotive grade certified
- Compatible with reflow and wave soldering
- Ceramic and glass construction
- Excellent environmental integrity
- Lead-free and Halogen-free
- Designed to UL 248-14

Specifications

Operating Temperature	: -55°C to +150°C
Storage Conditions	: +10°C to +60°C
Relative Humidity	: ≤ 75% yearly average without dew, maximum 30 days at 95%
Vibration Resistance	: 24 cycles at 15 min. each 10-60Hz at 0.75mm amplitude 60-2000Hz at 10g acceleration

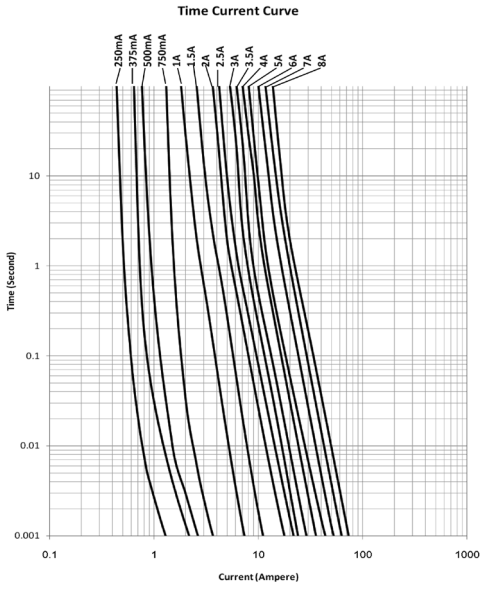
Electrical Characteristics

Time vs Current Characteristics Table

(measured with constant current power supply)

Time vs Current Characteristics		
Rated current	**100%**	**200%**
2.5A to 6A	>4h	<60s

Average Time Current (I-T) Curves



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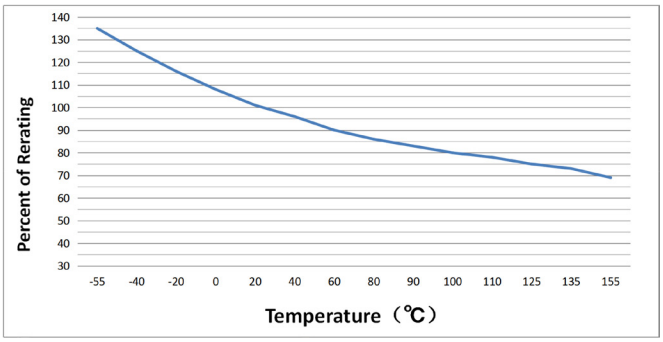
Electrical Characteristics at 25°C

Amp Code	Rated Current	Rated Voltage DC	Typical Voltage Drop (mV)	Breaking Capacity	Typical Melting I²T (A²s)	Typical Cold Ressistanc (mΩ)	Alpha Mark
0250	250mA	32V DC	893	50A @ 32V DC	0.00042	3250	D
0500	500mA		582		0.001	1070	F
1100	1A		335		0.0095	250	B
1150	1.5A		270		0.04	150	H
1200	2A		160		0.11	78	K
1300	3A		130		0.21	35	O
1500	5A		110		1.2	14	T
1600	6A		110		1.7	11	V**

Note: 1. DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source)
2. DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25 degrees
3. Typical Pre-arcing I^2t are measured at 10In Current
** For 1A-5A, the colour of glass coating is Green; for others, it's Blue.

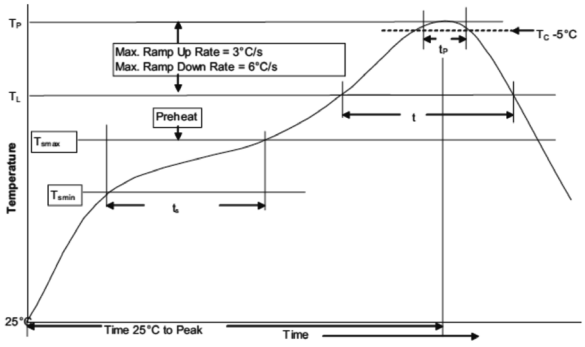
Specifications are subject to change without notice. Application testing is strongly recommended.

Temperature Re-rating Curve



Normal ambient temperature : 23 ±3°C
Operating temperature : -55°C ~ +150°C, with proper correction factor applied

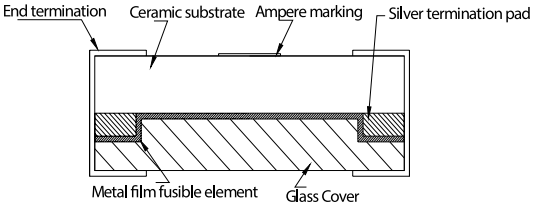
Soldering Parameters



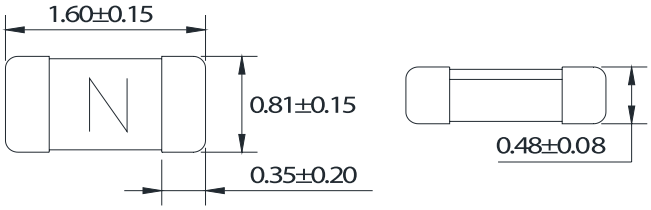
1. Infrared Reflow:
   Temperature: 260°C
   Time: 30S
   Recommend reflow profile
2. Wave Soldering:
   Reservoir Temperature: 260°C
   Time in Reservoir: 10sec Max.

Profile Feature		Pb-Free Assembly
Average Ramp-UP Rate(Tsmax to Tp)		3°C/s Max.
Preheat	Temperature Min (Ts min)	150°C
	Temperature Max (Ts max)	200°C
	Time (Tsmin to Ts max)	60sec to 120sec
Liquidous temperature(TL) Time at liquidous(tL)		217°C 60 to 150S
Peak package body temperature (Tp)		260°C
Time (tP) within 5°C of the specified classification temperature (Tc)		30S
Average ramp-down rate (Tp to Tsmax)		6°C/s Max.
Time (25°C to Peak Temperature)		8 Minutes Max.

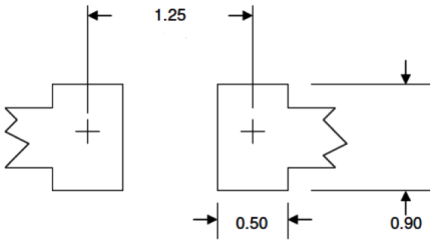
Mechanical Specifications



Diagram



Recommended Land Pattern



Dimensions : Millimetres

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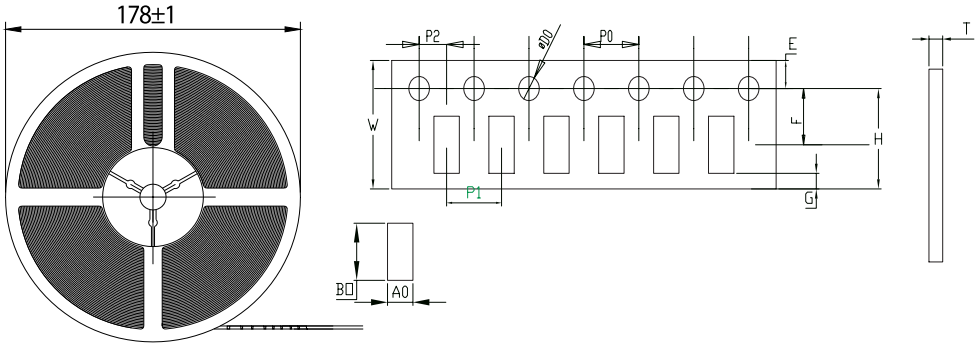
Packing Information



A0	B0	D0	E	P1	P2	T	G	F	P0	H	W
1.1 ±0.05	1.9 ±0.05	1.5 ±0.05	1.75 ±0.1	4 ±0.1	2 ±0.05	0.6 ±0.05	0.75 Min.	3.5 ±0.05	4 ±0.1	6.25 ±0.3	8 ±0.2

Part Number Table

Description	Part Number
SMD Fuse, Fast-Acting, 0.25A, 32V DC, 0603	MCCFB0603TFF/250
SMD Fuse, Fast-Acting, 0.5A, 32V DC, 0603	MCCFB0603TFF/500
SMD Fuse, Fast-Acting, 1A, 32V DC, 0603	MCCFB0603TFF/1
SMD Fuse, Fast-Acting, 1A, 32V DC, 0603	MP006273
SMD Fuse, Fast-Acting, 1A, 32V DC, 0603	MP006274
SMD Fuse, Fast-Acting, 1A, 32V DC, 0603	MP001585
SMD Fuse, Fast-Acting, 1.5A, 32V DC, 0603	MP001596
SMD Fuse, Fast-Acting, 2A, 32V DC, 0603	MCCFB0603TFF/2
SMD Fuse, Fast-Acting, 2A, 32V DC, 0603	MP001597
SMD Fuse, Fast-Acting, 3A, 32V DC, 0603	MCCFB0603TFF/3
SMD Fuse, Fast-Acting, 3A, 32V DC, 0603	MP001598
SMD Fuse, Fast-Acting, 5A, 32V DC, 0603	MCCFB0603TFF/5
SMD Fuse, Fast-Acting, 6A, 32V DC, 0603	MCCFB0603TFF/6

Dimensions : Millimetres