Time-Lag SMD Fuses
0603

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 SMD 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

- High inrush current withstanding capability
- Compatible with reflow and wave solder
- Ceramic and glass construction
- Excellent environmental integrity
- One time positive disconnect
- Lead-free and Halogen-free
- Designed compliant to UL 248-14

Specifications

Operating Temperature	: -55°C to +125°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

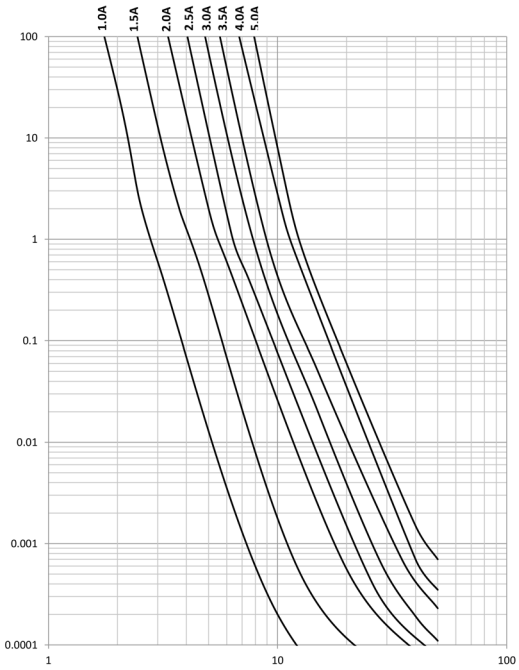
Electrical Characteristics

Time vs Current Characteristics Table

(measured with constant current power supply)

Time vs Current Characteristics			
Rated current	**100%**	**200%**	**250%**
1A to 5A	>4h	1s~60s	<5s

Average Time Current (I-T) Curves

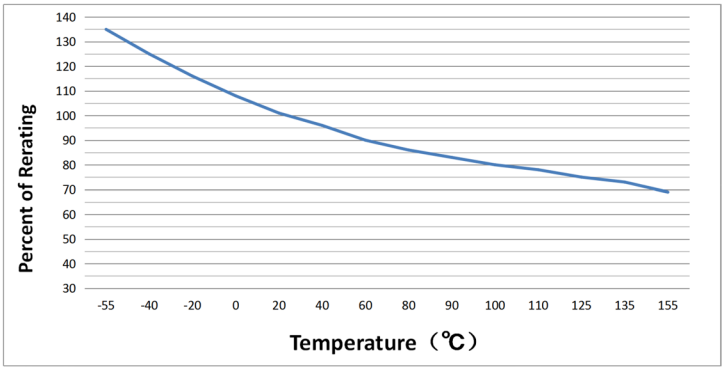


Electrical Characteristics

Amp Code	Rated Current	Rated Voltage DC	Typical Voltage Drop (mV)	Breaking Capacity	Typical Melting I^2T (A^2s)	Typ. Resistance (mΩ)	Alpha Mark
1100	1A	32V DC	325	50A @ 32V DC	0.015	216~280	H
1150	1.5A		255		0.05	110~180	K
1200	2A		150		0.125	60~88	N
1250	2.5A		135		0.14	47~61	O
1300	3A		120		0.35	26~44	P
1350	3.5A		125		0.62	20~35	R
1400	4A		110		0.81	17~24	S
1500	5A		103		2	10.5~15	T

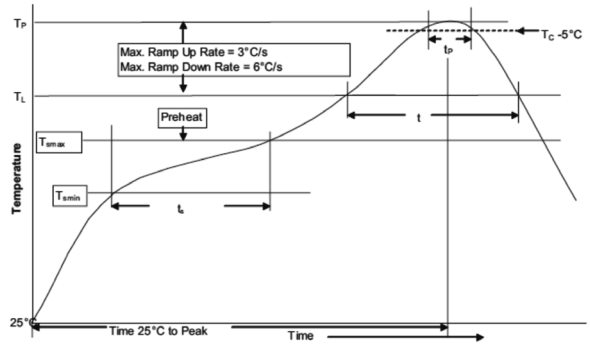
1. DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source)
2. DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25degrees
3. Typical Pre-arcing I^2t are measured at 10In Current

Temperature Re-rating Curve



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

Soldering Parameters



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.

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

Mechanical Specifications

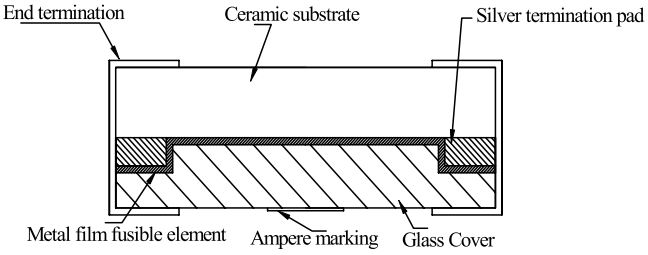


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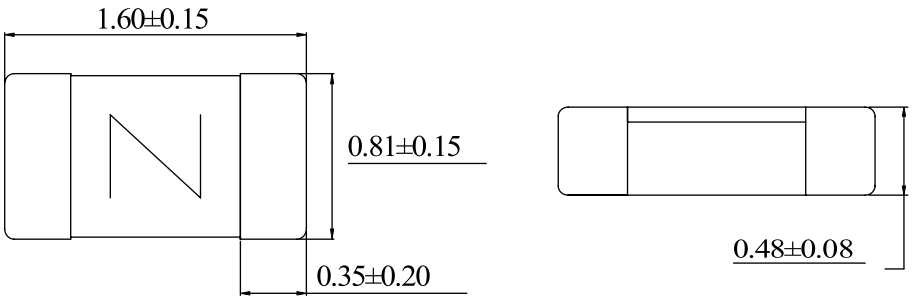
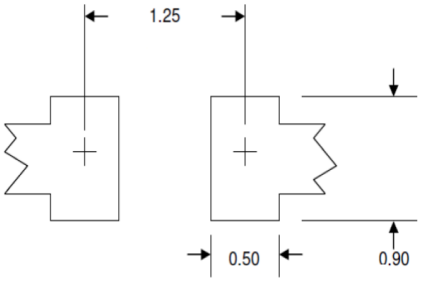
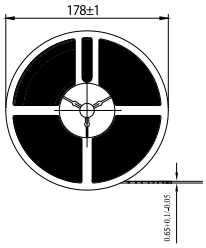
Diagram



Recommended land pattern



Packing Information



Part Number Table

Description	Part Number
SMD Fuse, Time-Lag, 1A, 32V DC, 0603	MCCFB0603TTT/1
SMD Fuse, Time-Lag, 1.5A, 32V DC, 0603	MCCFB0603TTT/1.5
SMD Fuse, Time-Lag, 2.5A, 32V DC, 0603	MCCFB0603TTT/2.5
SMD Fuse, Time-Lag, 3A, 32V DC, 0603	MCCFB0603TTT/3
SMD Fuse, Time-Lag, 3A, 32V DC, 0603	MP001603
SMD Fuse, Time-Lag, 4A, 32V DC, 0603	MCCFB0603TTT/4
SMD Fuse, Time-Lag, 5A, 32V DC, 0603	MCCFB0603TTT/5
SMD Fuse, Time-Lag, 5A, 32V DC, 0603	MP001604

Dimensions : Millimetres