FXXXXX-0603FD Series Fuse

Description

FXXXXX-0603FD 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

AEC-Q200 Automotive Grade Certified

Compatible with reflow and wave solder

Excellent environmental integrity

One time positive disconnect

Lead Free and Halogen free material

Electrical Characteristics for Series

Electrical Characteristics		
Rated Current	1.0In	2In
0.25～8A	4 hour min	60sec max.

Specifications

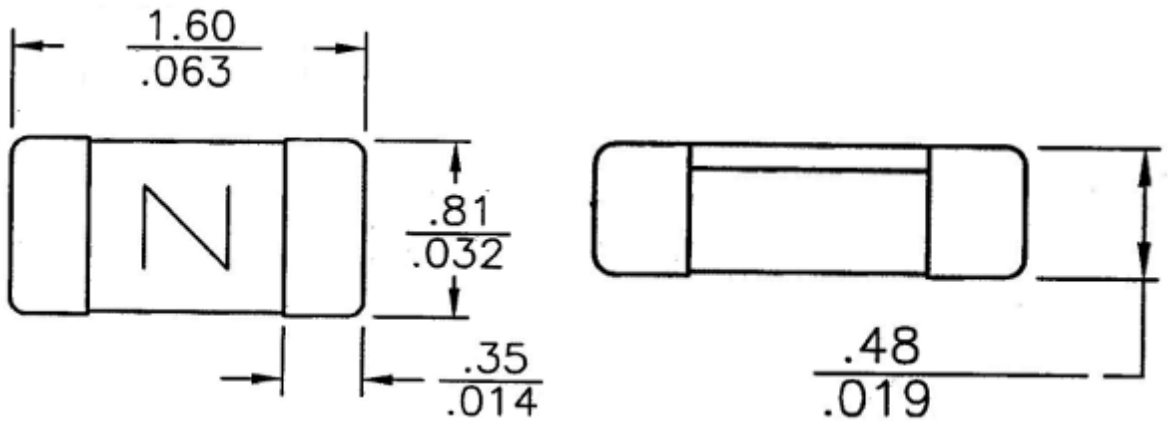
Part No.	Rated Voltage DC	Rated current A	Breaking Capacity(A)[1]	Typical Cold Resistance (mOhms)[2]	Typical Voltage Drop(mV)	Typical pre-Arcing I^2T (A^2Sec)[3]	Alpha Mark
F00250-0603FD	32V	0.250	50A	3250	893	0.00042	D
F00375-0603FD		0.375		1310	587	0.00093	E
F00500-0603FD		0.500		1070	582	0.001	F
F00750-0603FD		0.750		470	427	0.009	G
F01000-0603FD		1		230	335	0.011	B
F01500-0603FD		1.5		150	270	0.045	H
F02000-0603FD		2		72	160	0.115	K
F02500-0603FD		2.5		52	145	0.14	L
F03000-0603FD		3		35	130	0.21	O
F03500-0603FD		3.5		23.8	130	0.5	R
F04000-0603FD		4		21	120	0.56	S
F05000-0603FD		5		14	110	1.2	T
F06000-0603FD		6		8.5	110	1.7	V**
F07000-0603FD		7		7.3	80	2.3	X**
F08000-0603FD		8		5.1	75	3.0	Z**

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℃
3. Typical Pre-arcing I^2t are measured at 10In Current

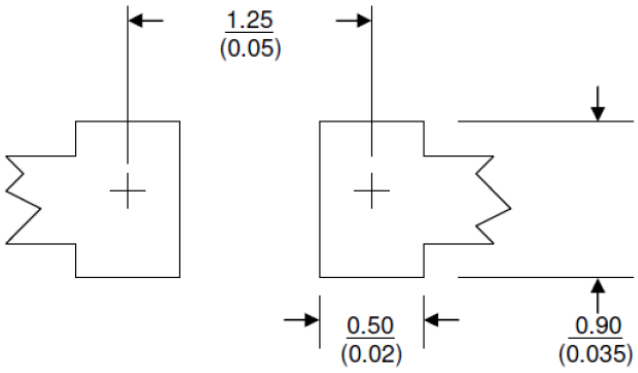
** For 1A-5A, the color of glass coating is Green; for others, it's Blue.

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

Dimensions Drawing not to scale (Unit:mm)



Recommended land pattern

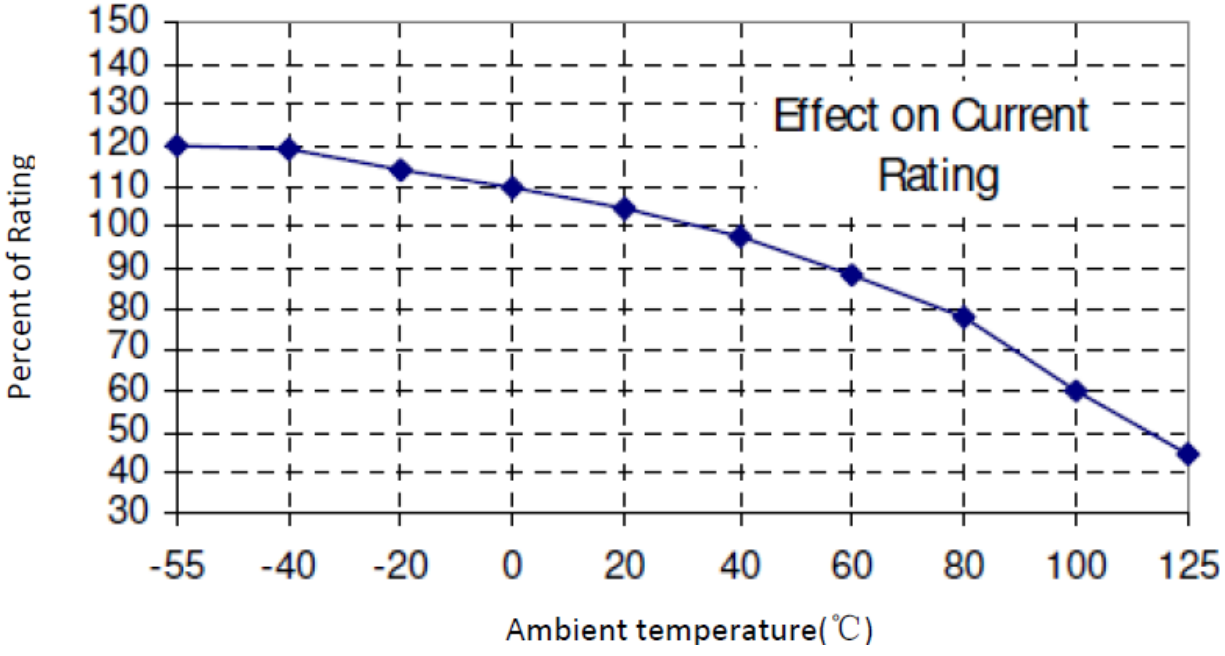


Unit: mm/inches

Temperature Derating Curve

Normal ambient temperature: 23+/-3℃

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



Soldering method

- Wave solder

  Reservoir temperature: 260℃

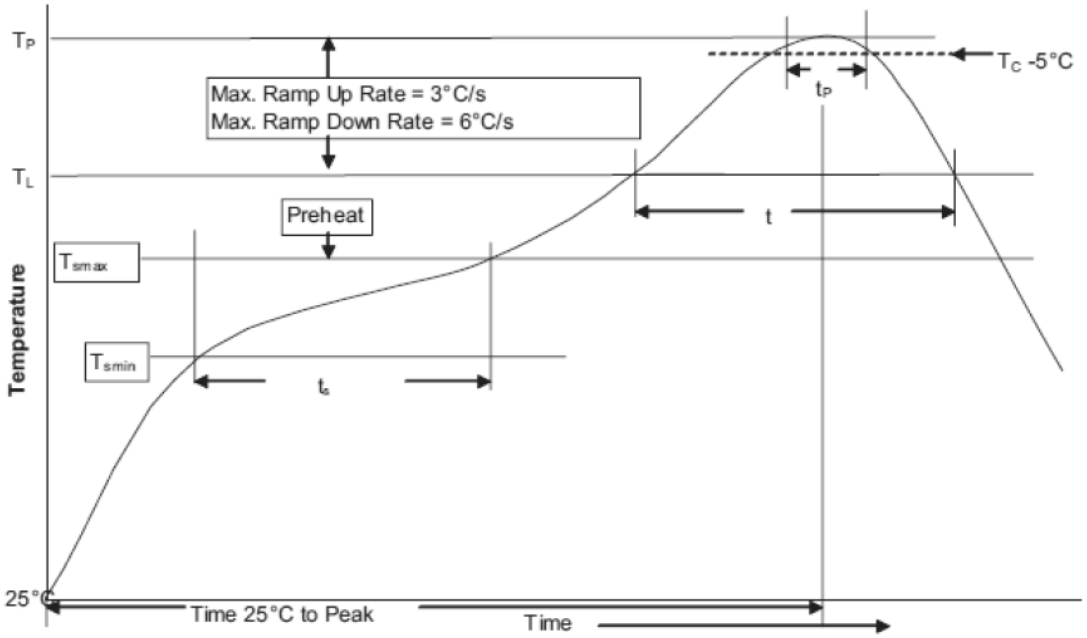
  Time in reservoir: 10 seconds maximum

- Infrared reflow

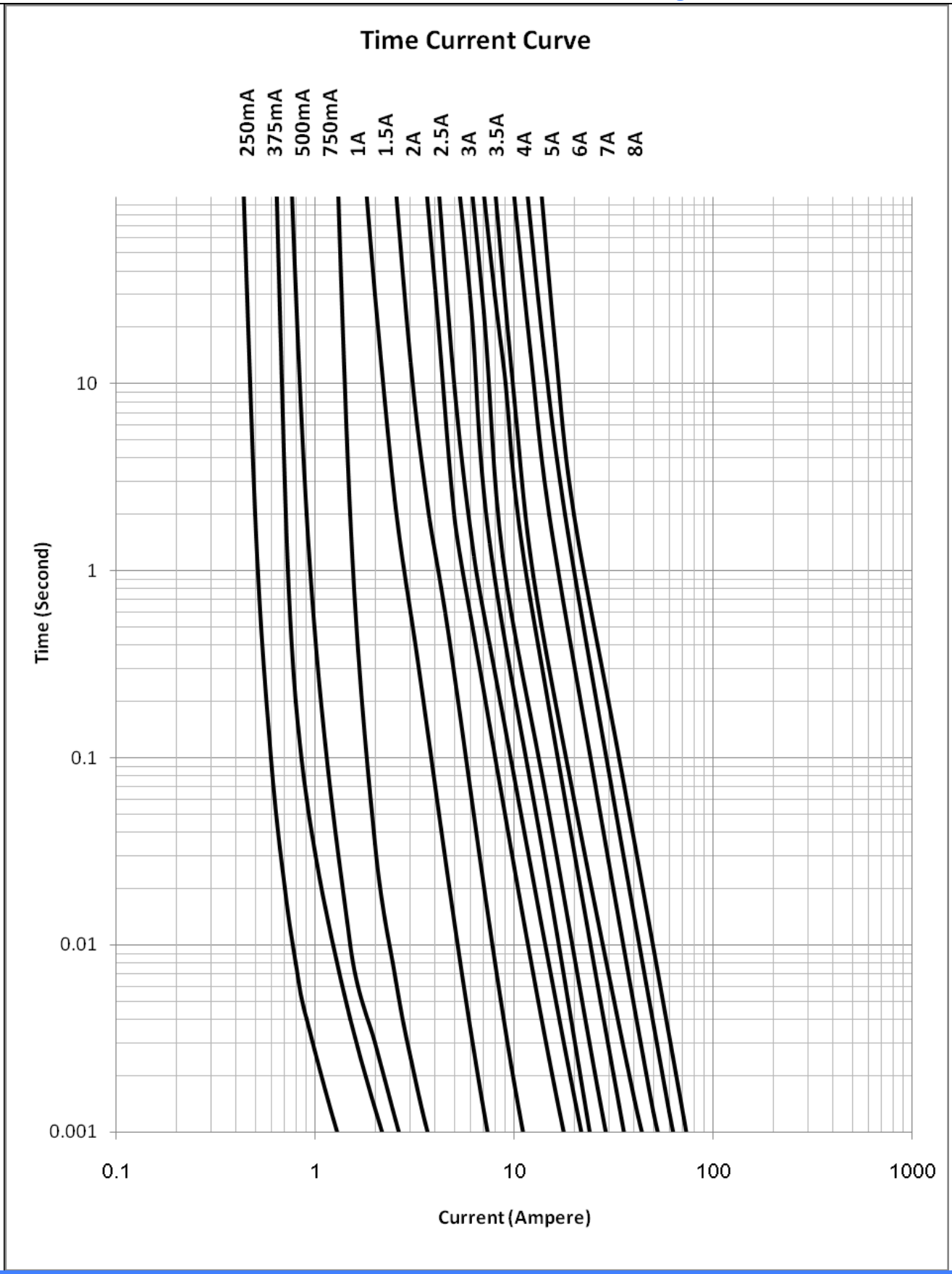
  Temperature: 260℃

  Time: 30 seconds maximum

Solder reflow profile



Profile Feature		Lead(Pb) free solder
Preheat and soak	Temperature min.(Tsmin)	150℃
	Temperature max. (Tsmax)	200℃
	Time (Tsmin to Tsmax) (tS)	60 - 120 Seconds
Average ramp up rate Tsmax to Tp		3℃ / Second Max.
Liquidous temperature (TL) Time at liquidous (tL)		217℃ 60 - 150 Seconds
Peak package body temperature (TP)		260℃
Time (tP) within 5℃ of the specified classification temperature (TC)		30 Seconds
Average ramp-down rate (TP to Tsmax)		6℃ / Second Max.
Time (25℃ to Peak Temperature)		8 Minutes Max.



Package

5000 fuses on 8mm tape-and-reel on a 7 inch (178mm) reel per EIA Standard 481.