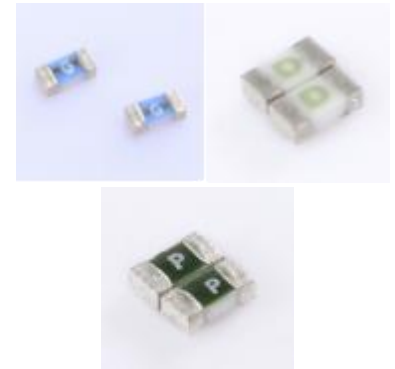




Description

BT0603-F 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.



Electrical Characteristics		
Rated Current	1.0In	2.0In
250mA~8A	4 hour minimum	60 sec maximum

Features

- High inrush current withstanding capability
- Compatible with reflow and wave solder
- Excellent environmental integrity
- One time positive disconnect
- Lead Free and Halogen free material

Specifications

Specification								
Part No.	Rated Voltage DC		Rated Current (A)	Breaking Capacity ¹	Typical Cold Resistance (mOhms) ²	Typical Voltage Drop (mV)	Typical Pre- Arcing I ² t (A ² Sec) ³	Alpha Mark
BT-0603-0.250F	63V		0.250	50A	3250	893	0.00042	D
BT-0603-0.375F			0.375	50A	1310	587	0.00093	E
BT-0603-0.500F			0.500	50A	1070	582	0.0020	F
BT-0603-0.750F			0.750	50A	470	427	0.0092	G
BT-0603-1.00F			1	50A	257.5	295	0.018	H
BT-0603-1.50F	32V		1.5	50A	137.5	220	0.065	K
BT-0603-2.00F			2	50A	72	160	0.115	N
BT-0603-2.50F			2.5	50A	52	145	0.14	O
BT-0603-3.00F			3	50A	35	130	0.21	P
BT-0603-3.50F			3.5	50A	23.8	130	0.55	R
BT-0603-4.00F			4	50A	21	120	0.52	S
BT-0603-5.00F			5	50A	14	110	1.70	T
BT-0603-6.00F			6	50A	8	110	2.30	V
BT-0603-7.00F			7	50A	5.6	80	2.8	X
BT-0603-8.00F			8	50A	3.5	75	4.96	Z

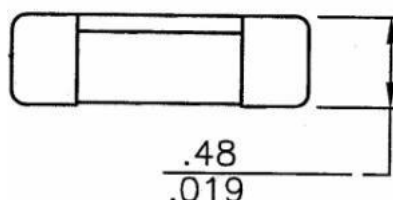
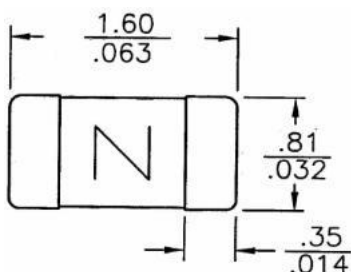
*DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source)

* DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25degrees

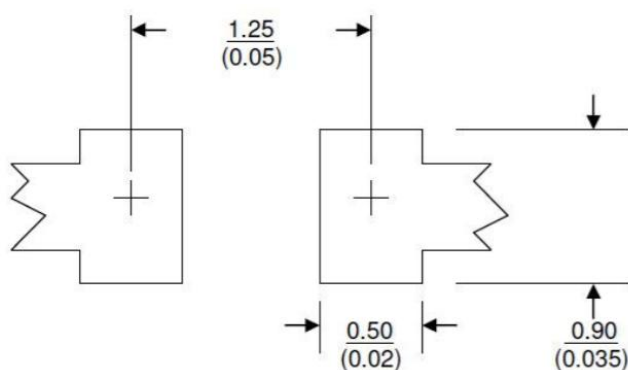
* Typical Pre-arching I² t are measured at 10In Current

** For fuse below 1A, the color of glass coating is Blue; for 1A and above, it's Green.

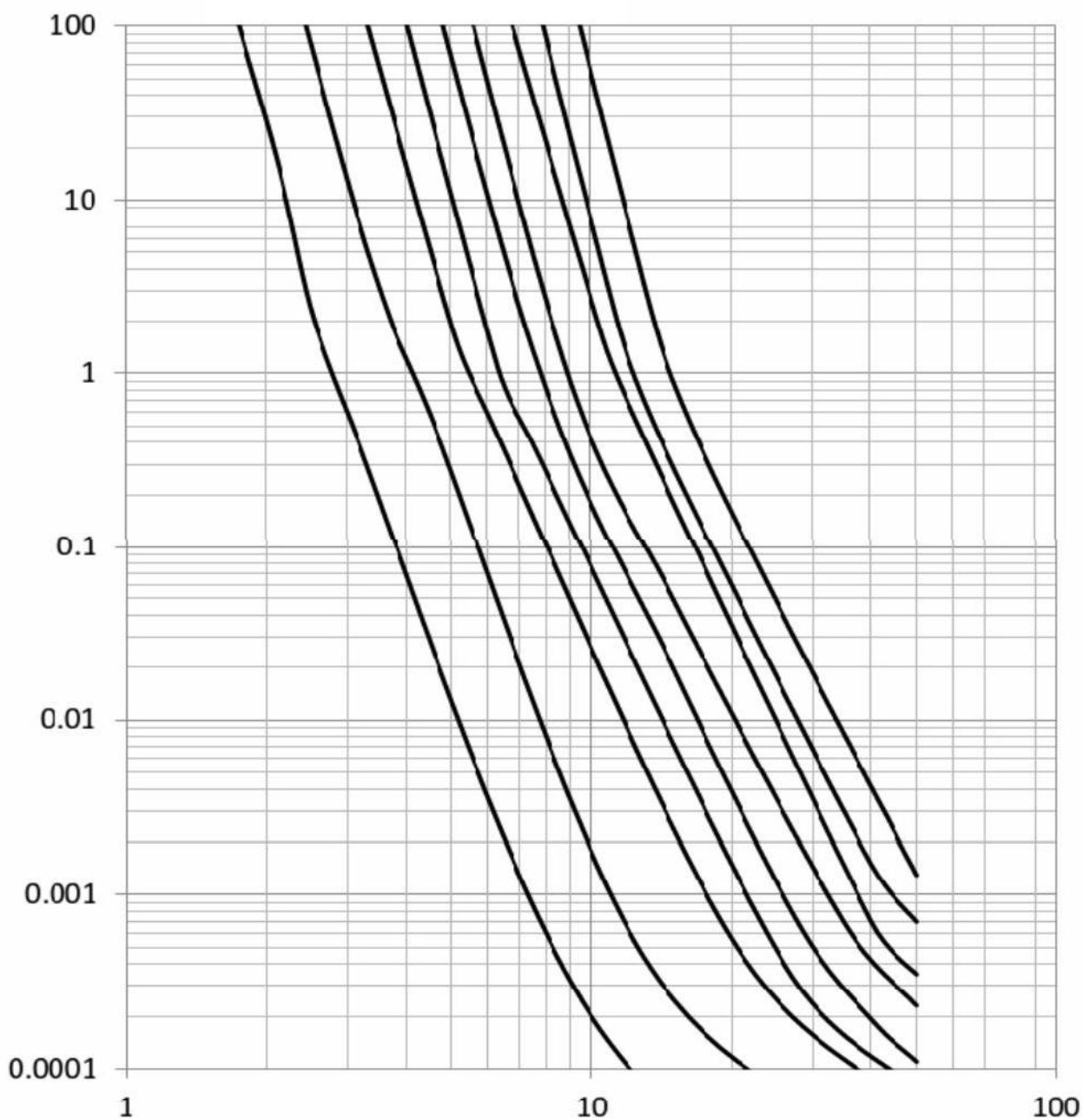
Dimension Drawing not to scale (Unit: mm/inch)



Recommended land pattern (Unit: mm/inch)



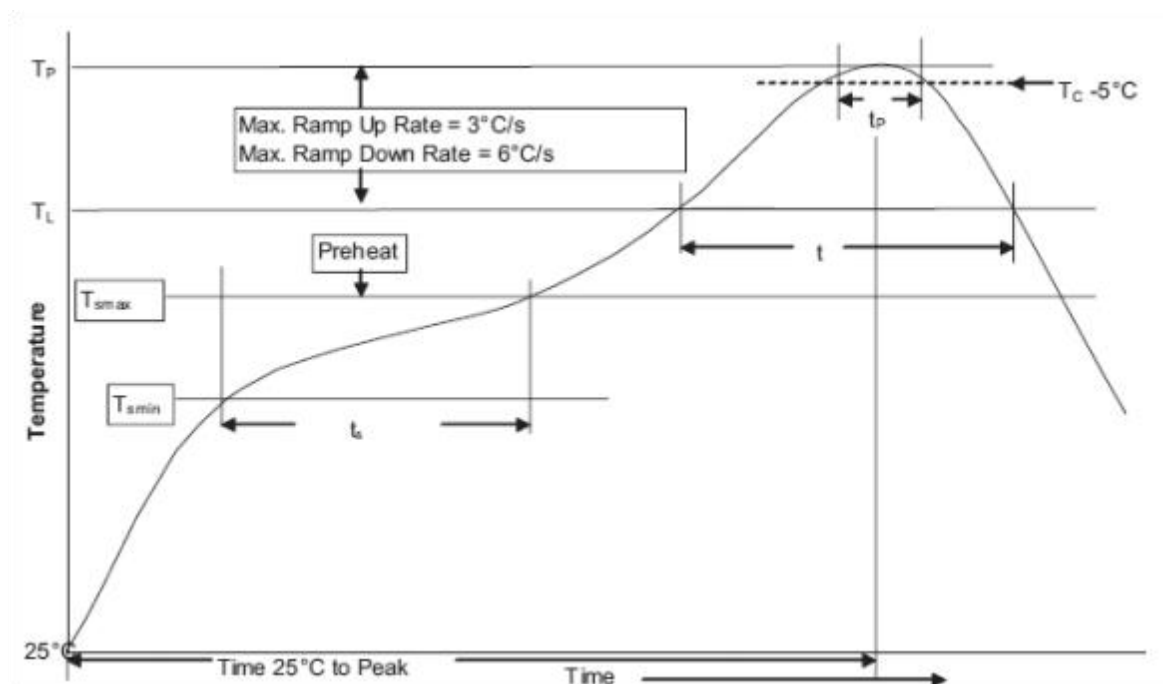
Time Current Curve



Soldering method

- Wave solder
 - Reservoir temperature: 260°C
 - Time in reservoir: 10 seconds maximum
- Infrared reflow
 - Temperature: 260°C
 - Time: 30 seconds maximum

Solder reflow profile



Profile Feature		Lead(Pb) free solder
Preheat and soak	• Temperature min. (T_{min})	150°C
	• Temperature max. (T_{max})	200°C
	• Time (T_{min} to T_{max}) (t_s)	60 - 120 Seconds
Average ramp up rate T_{max} to T_P		3°C / Second Max.
Liquidous temperature (T_L)		217°C
Time at liquidous (t_L)		60 - 150 Seconds
Peak package body temperature (T_P)		260°C
Time (t_P) within 5°C of the specified classification temperature (T_C)		30 Seconds
Average ramp-down rate (T_P to T_{max})		6°C / Second Max.
Time (25°C to Peak Temperature)		8 Minutes Max.

Package

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