FAST ACTING CHIP FUSES

FUSE

DESCRIPTION

The PF0603F Series are fast acting chip fuses that are designed to protect consumer electronics, computers and tele-commincations equipment and devices from the risk of fire or shock caused by over-currents.

The PF0603F Series is available in a rugged ceramic and glass package. These devices have excellent environmental performance.

FEATURES

- Fast Acting for Excessive Current
- Compatible with Reflow and Wave Solder
- Excellent Environmental Performance
- RoHS & REACH Compliant
- Halogen-Free Material
- Life Test: MIL-STD-202, Method 108A
- Humidity Bias: MIL-STD-202, Method 103
- Moisture Resistance Test: MIL-STD-202, Method 106G
- Thermal Shock: MIL-STD-202, Method 107G
- Board Flex: AEC-Q200-005, Appendix 2 (1mm Min)
- Vibration: MIL-STD-202, Method 204D
- Mechanical Shock: MIL-STD-202, Method 213B
- Solderability: MIL-STD-202, Method 208H
- Resistance to Solder Heat: MIL-STD-202, Method 210A

APPLICATIONS

- Telecommications Equipment - DSL/Cable Modems
- SMART Phones and other Handheld Devices
- Computers - Laptops, Desktops, Servers
- Computer Peripherials - Printers, LCD Panels, Scanners
- Consumer Electronics - DVD Player, MP3/4 Player

MECHANICAL CHARACTERISTICS

- Ceramic and Glass Package
- Approximate Weight: TBA grams
- Lead-Free
- Soldering Method
  - Wave Soldering: 260°C, 10s Max
  - Reflow Soldering: 260°C, 30s Max

ELECTRICAL CHARACTERISTICS		
AMPERE RATING	% OF AMP RATING	OPENING TIME
250mA - 6A	100%	4 Hours Minimum
250mA - 6A	250%	5 Seconds Maximum

TYPICAL DEVICE CHARACTERISTICS

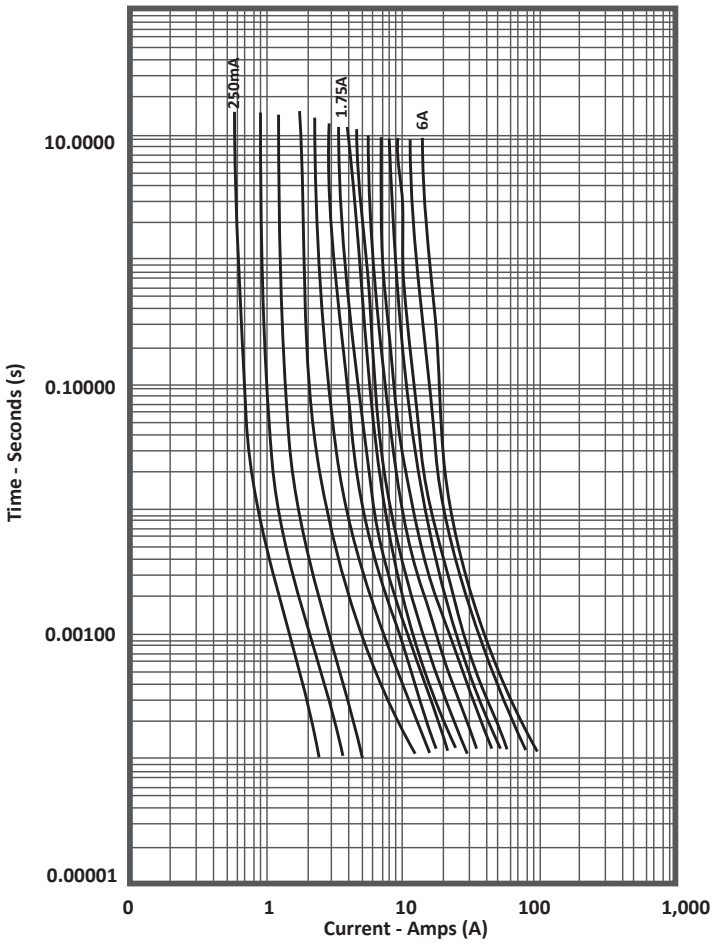
ELECTRICAL SPECIFICATIONS								
PART NUMBER	MARKING CODE	CURRENT RATING	VOLTAGE RATING		INTERRUPTING RATING (Note 1)	TYPICAL RESISTANCE (Note 2)	TYPICAL MELT I^2t (Note 3)	TYPICAL VOLTAGE DROP (Note 4)
			AC VOLTS	DC VOLTS	AC/DC AMPS	OHMS	DC (A^2s)	VOLTS
PF0603F250	D	0.250	32	32	50	5.1	0.0004	1.30
PF0603F375	E	0.375	32	32	50	2.4	0.0009	0.93
PF0603F500	F	0.500	32	32	50	1.1	0.0018	0.66
PF0603F750	G	0.750	32	32	50	0.7	0.0070	0.58
PF0603F1	H	1.00	32	32	50	0.23	0.015	0.25
PF0603F1.25	J	1.25	32	32	35	0.165	0.022	0.19
PF0603F1.5	K	1.50	32	32	35	0.125	0.032	0.18
PF0603F1.75	M	1.75	32	32	35	0.08	0.048	0.17
PF0603F2	N	2.00	32	32	35	0.063	0.052	0.17
PF0603F2.5	O	2.50	32	32	35	0.04	0.061	0.13
PF0603F3	P	3.00	32	32	35	0.028	0.070	0.12
PF0603F3.5	R	3.50	32	32	35	0.022	0.122	0.11
PF0603F4	S	4.00	32	32	35	0.018	0.220	0.11
PF0603F5	T	5.00	32	32	35	0.011	0.680	0.11
PF0603F6	Y	6.00	32	32	35	0.008	0.920	0.10

NOTES

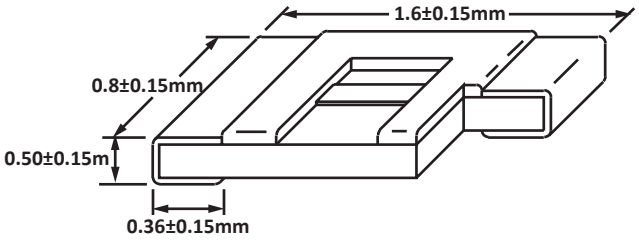
1. AC Interrupting Rating - measured at rated voltage with a unity power factor; DC Interrupting Rating - measured at rated voltage, time constant of less than 50 microseconds, battery source.
2. DC Cold Resistance - measured at 10% of rated current.
3. Typical Melting I2t - measured with a battery bank at rated DC voltage, 10x-rated current, not to exceed IR, time constant of calirated circuit less than 50 microseconds. 4A, 5A and 6A measured at interrupting rating.
4. Typical Voltage drop - measured at rated current after temperature stabilizes. Device designed to carry rated current for four hours minimum. An operating current of 75% or less of rated current is recommended, with further derating required at elevated ambient temperatures.

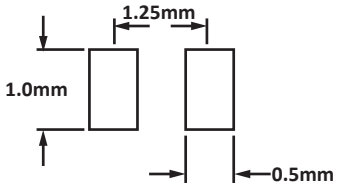
TYPICAL DEVICE CHARACTERISTICS

FIGURE 1
TIME CURRENT CURVE

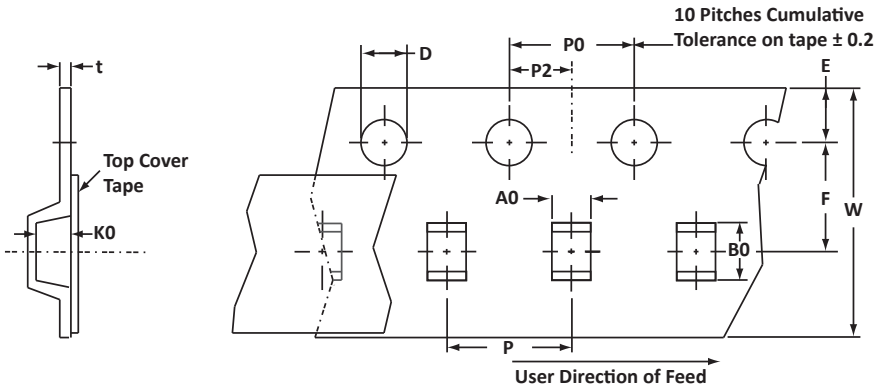


PACKAGE OUTLINE AND PAD LAYOUT INFORMATION





TAPE AND REEL



SPECIFICATIONS												
REEL DIA.	TAPE WIDTH	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	1.05 ± 0.10	1.97 ± 0.10	0.70 ± 0.10	1.50 ± 0.10	1.75 ± 0.10	3.50 ± 0.05	8.00 ± 0.30	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.25

NOTES
1. Dimensions are in millimeters.
2. Surface mount product is taped and reeled in accordance with EIA-481.
3. Suffix - T75 = 7" Reel - 5,000 pieces per 8mm tape.
4. Marking on Part - marking code.

ORDERING INFORMATION					
BASE PART NUMBER (xx = Voltage)	LEADFREE SUFFIX	TAPE SUFFIX	QTY/REEL	REEL SIZE	TUBE QTY
PF0603Fxx	N/A	-T75	5,000	7"	N/A
This device is only available in a Lead-Free configuration.					

COMPANY INFORMATION

COMPANY PROFILE

In business more than 20 years, ProTek Devices™ is a privately held semiconductor company. The company offers a product line of overvoltage protection and overcurrent protection components. These include transient voltage suppressor array (TVS arrays) avalanche breakdown diode, steering diode TVS array and electronics SMD chip fuses. These components deliver circuit protection in electronic systems from numerous overvoltage and overcurrent events. They include lightning; electrostatic discharge (ESD); nuclear electromagnetic pulses (NEMP); inductive switching; and electromagnetic interference (EMI) / radio frequency interference (RFI). ProTek Devices also offers high performance interface and linear products. They include analog switches; multiplexers; LED drivers; LED wafer die for ESD protection; audio control ICs; RF and related high frequency products.

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