

## FAST ACTING CHIP FUSES



### DESCRIPTION

The PF0402F Series are fast acting chip fuses that are designed to protect consumer electronics, computers and telecommunications equipment and devices from the risk of fire or shock caused by over-currents.

The PF0402F 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: 30°C ±2°C, 75% Rated Current, 1000 Hours
- Humidity Bias: MIL-STD-202, Method 103
- Thermal Shock: MIL-STD-202, Method 107G
- Board Flex: AEC-Q200-005, Appendix 2 (1mm Min)
- Vibration: MIL-STD-202, Method 204D
- Solderability: MIL-STD-202, Method 208H
- Resistance to Solder Heat: MIL-STD-202, Method 210A

### APPLICATIONS

- Telecommunications Equipment - DSL/Cable Modems
- SMART Phones and other Handheld Devices
- Computers - Laptops, Desktops, Servers
- Computer Peripherals - 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  
Reflow Soldering: 260°C, 5s Max

### ELECTRICAL CHARACTERISTICS

AMPERE RATING	% OF AMP RATING	OPENING TIME
200mA - 4A	100%	4 Hours Minimum
200mA - 4A	250%	5 Seconds Maximum

## TYPICAL DEVICE CHARACTERISTICS

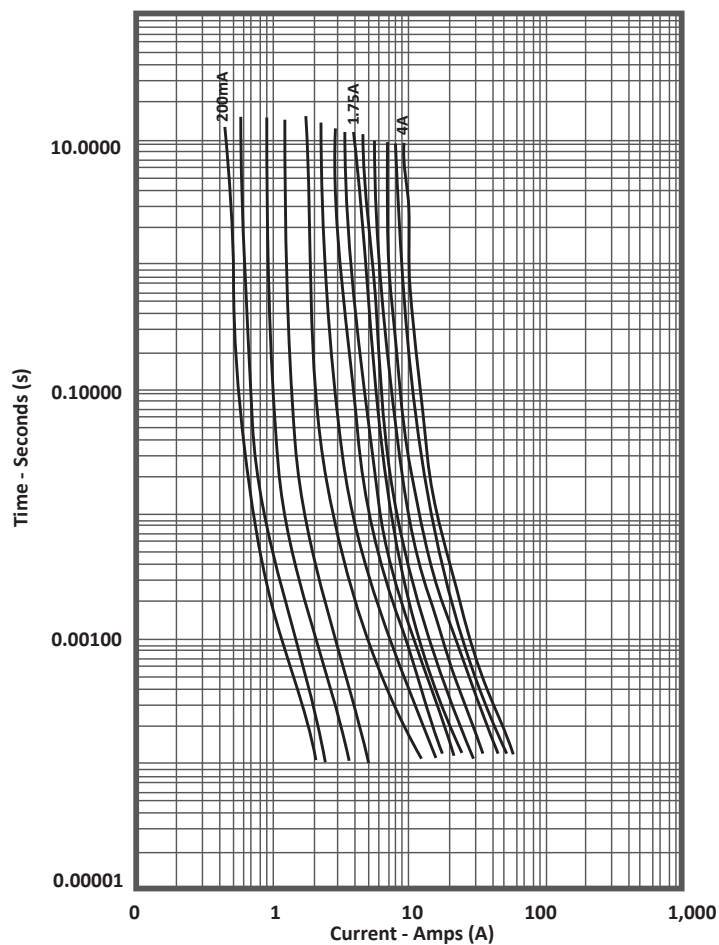
ELECTRICAL SPECIFICATIONS					
PART NUMBER	CURRENT RATING	VOLTAGE RATING	INTERRUPTING RATING (Note 1)	TYPICAL RESISTANCE (Note 2)	TYPICAL MELT I <sup>2</sup> t (Note 3)
	AMPS	DC VOLTS	DC AMPS	OHMS	DC (A <sup>2</sup> s)
PF0402F200	0.200	24	35	4.300	0.0008
PF0402F250	0.25	24	35	3.200	0.0011
PF0402F375	0.350	24	35	1.140	0.0021
PF0402F500	0.500	24	35	1.200	0.0043
PF0402F750	0.750	24	35	0.520	0.0110
PF0402F1	1.00	24	35	0.090	0.049
PF0402F1.25	1.25	24	35	0.075	0.052
PF0402F1.5	1.50	24	35	0.058	0.076
PF0402F1.75	1.75	24	35	0.045	0.13
PF0402F2	2.00	24	35	0.035	0.18
PF0402F2.5	2.50	24	35	0.025	0.23
PF0402F3	3.00	24	35	0.019	0.33
PF0402F3.5	3.50	24	35	0.018	0.45
PF0402F4	4.00	24	35	0.014	0.65

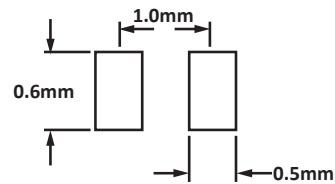
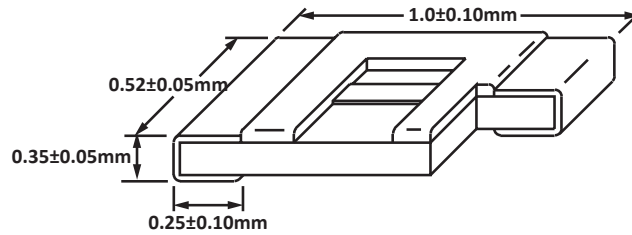
**NOTES**

1. 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 I<sup>2</sup>t - measured with a battery bank at rated DC voltage and 1ms open time. 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.

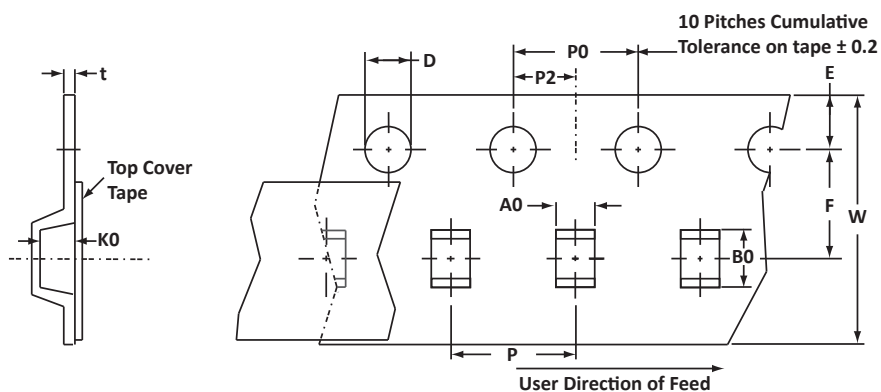
## TYPICAL DEVICE CHARACTERISTICS

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	0.67 ± 0.10	1.10 ± 0.10	0.50 ± 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 - T710 = 7" Reel - 10,000 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
PF0402Fxx	N/A	-T710	10,000	7"	N/A

This device is only available in a Lead-Free configuration.

## COMPANY INFORMATION

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### 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 electro-magnetic 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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