

FP1 MINI® STYLE PCB FUSE RATED 32V



Specifications

Insulating body:	Out of thermoplastic (UL 94-V0, heat-resistant)
Cover:	Out of thermoplastic (V0, transparent), Visible melting-element
Terminals:	Shunt: Red, not transparent Soldering pins Copper alloy, gal. Sn plated
Interrupting Rating:	1000 A @ 32 VDC
Complies with:	UL 248 Special Purpose Fuses
cULus Recognized:	File No. E10480

Ordering Information

Part Number	Package Size
168.6585.xxx2	1500
168.6585.xxx6	100

Description

The FP1 is a MINI® style fuse for direct through-hole pcb soldering. For wave solder application the use of LF 0874 wave solder profile (see next page) is recommended. The FP1 has similar performance characteristics as the standard FK1 fuse.

Time-Current Characteristics

% of Rating	Opening Time Min / Max (s)
110	360,000 s / -
135	0.750 s / 1,800 s
200	0.150 s / 5 s
350	0.040 s / 0.500 s
600	0.020 s / 0.100 s

Ratings

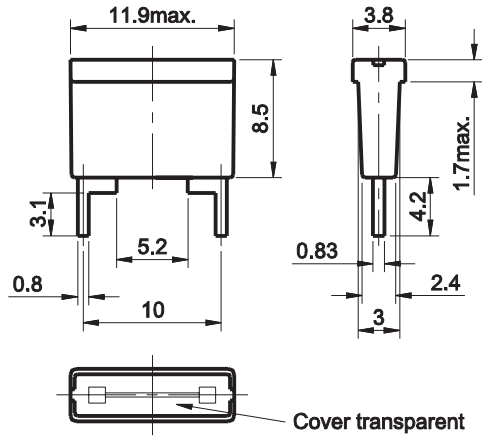
Part Number	Current Rating	Housing Color	Typ. Voltage Drop Littelfuse max.	Cold Resistance	I²t
168.6585.410_	1A	Black	135 mV	100 mΩ	0.83 A²s
168.6585.420_	2A	Grey	110 mV	43.0 mΩ	3.31 A²s
168.6585.430_	3A	Purple	110 mV	27.0 mΩ	7.45 A²s
168.6585.440_	4A	Pink	110 mV	21.3 mΩ	16.7 A²s
168.6585.450_	5A	Brown	105 mV	16.2 mΩ	19.8 A²s
168.6585.475_	7.5A	Dark Brown	100 mV	9.70 mΩ	44.5 A²s
168.6585.510_	10A	Red	110 mV	7.40 mΩ	79.2 A²s
168.6585.515_	15A	Blue	105 mV	4.50 mΩ	178 A²s
168.6585.520_	20A*	Yellow	100 mV	3.10 mΩ	331 A²s
168.6585.525_	25A*	White	105 mV	2.60 mΩ	653 A²s
168.6585.530_	30A*	Green	105 mV	1.90 mΩ	1,264 A²s
160.6585.0002	Shunt*	White	60 mV	1.35 mΩ	1,800 A²s

*No UL Certification Available

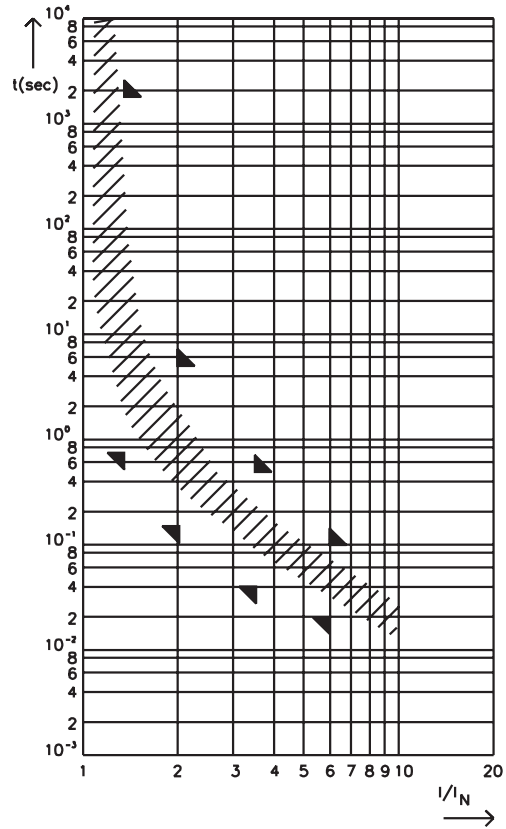
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Dimensions

Dimensions in mm

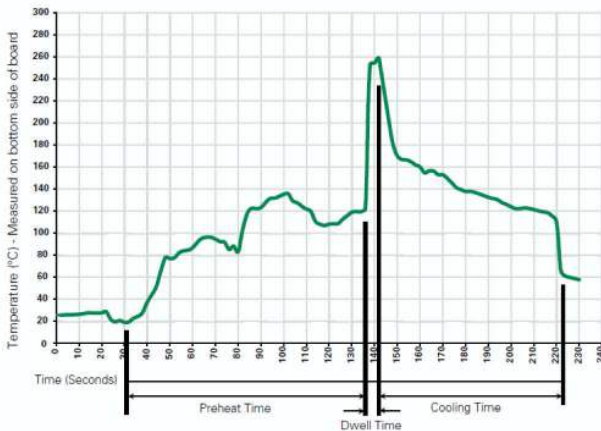


Pre-Arcing Time-Limits



FI = 1.33 (max. operating current: $0.75 \times I_{rat}$ at 23°C)

Soldering Parameters - Wave Soldering



Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
Preheat: (Depends on Flux Activation Temperature) (Typical Industry Recommendation)	
Temperature Minimum:	100° C
Temperature Maximum:	150° C
Preheat Time:	60-180 seconds
Solder Pot Temperature:	260° C Maximum
Solder Dwell Time:	2-5 seconds

Recommended Hand-Solder Parameters:

Solder Iron Temperature: 350° C +/- 5°C
Heating Time: 5 seconds max.

Note: These devices are not recommended for IR or Convection Reflow process.