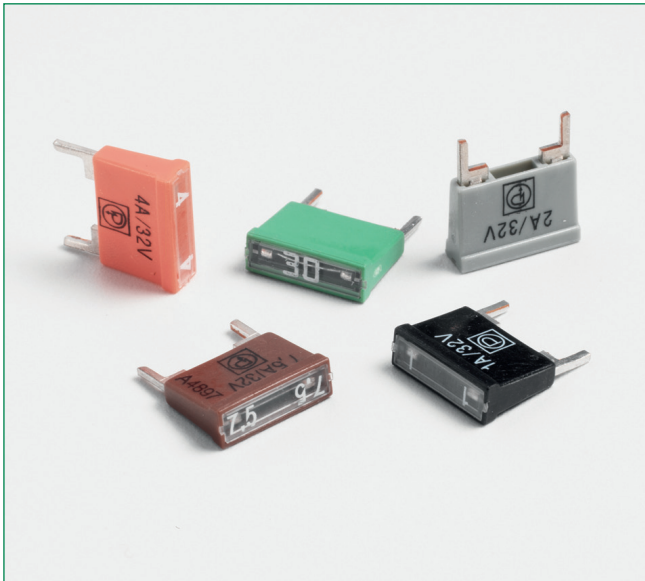


# FP1 MINI® STYLE PCB FUSE RATED 32V



## 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

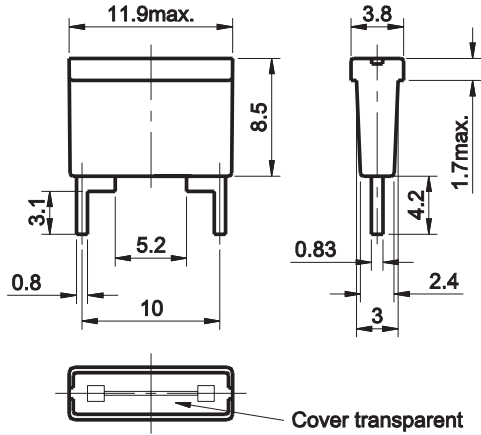
Part Number	Current Rating	Housing Color	Typ. Voltage Drop Littelfuse max.	Cold Resistance	I <sup>2</sup> t
168.6585.410_	1A	Black	135 mV	100 mΩ	0.83 A <sup>2</sup> s
168.6585.420_	2A	Grey	110 mV	43.0 mΩ	3.31 A <sup>2</sup> s
168.6585.430_	3A	Purple	110 mV	27.0 mΩ	7.45 A <sup>2</sup> s
168.6585.440_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

\*No UL Certification Available

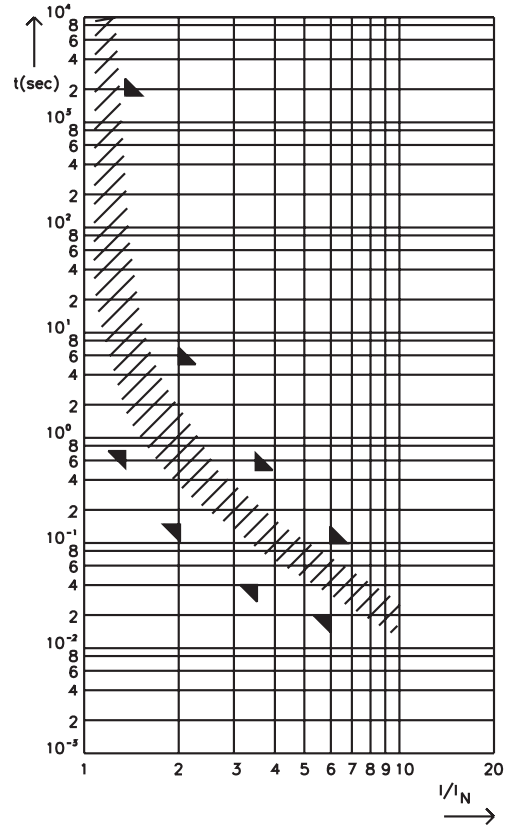
**FP1 MINI® STYLE PCB FUSE RATED 32V**

**Dimensions**

Dimensions in mm

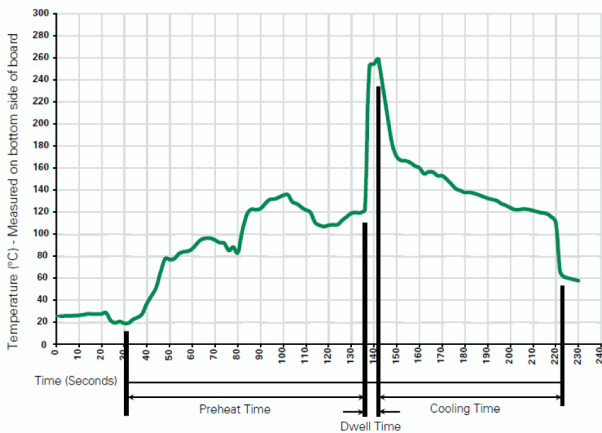


**Pre-Arcing Time-Limits**



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
<b>Preheat:</b> (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.**