

### **POWrFuse™ PF-E Series Features**

- Designed to UL 248-19 (gPV) photovoltaic fuse standard
- 15-30 A ratings available
- Up to 20 kA interrupting rating
- Available in ferrule or PCB mounting options
- RoHS compliant\* and halogen free\*\*
- Agency recognition: c(UL)us



# PF-E Series – Photovoltaic (gPV) Power Fuses

#### **Clearing Time Characteristics for Series**

9/ of Courset Boting	Clearing Time at 25 °C		
% of Current Rating	Minimum	Maximum	
100 %	4 hours	_	
135 %	_	60 minutes	
200 %	_	4 minutes	

#### **Additional Information**

Click these links for more information:











#### **Environmental Characteristics**

Operating Temperature... -55 °C to +125 °C

#### **Electrical Characteristics**

Model	Rated Current	Nominal Resistance	Rated	Interrupting	Interrupting Nominal Rating I²t (A²s)****	Watts Loss (W)		Agency Recognition
	(A)	(Ω)***	Voltage	Rating		@ 70 % I <sub>n</sub>	@ 100 % I <sub>n</sub>	C UL US
PF-EC1-15	15	15 0.00054			005	1.04	2.00	
PF-ET1-15	15	0.00854	1000 VDC	00 kA @ 4000 VDC	365	1.24	3.06	E506050
PF-EC1-20	00	00 00505			804.3	1.33	3.22	
PF-ET1-20	20	0.00505						
PF-EC1-25	0.5	0.00000	1000 VDC	20 kA @ 1000 VDC	1000	1.00	4.00	<u>E526252</u>
PF-ET1-25	25	0.00396			1202	1.66	4.28	
PF-EC1-30	<del>-</del> 30 ∣	30 0.00302			0000	4.70	4.50	
PF-ET1-30					2229	1.78	4.56	

Resistance value measured with ≤10 % rated current at 25 °C ambient.

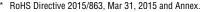
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<sup>\*\*</sup> Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (CI) content is 1500 ppm or less. "POWrFuse" is a trademark of Bourns, Inc.

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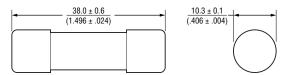
<sup>\*\*\*\*</sup> Nominal I2t value measured at 20 kA / 500 VDC.

# PF-E Series - Photovoltaic (gPV) Power Fuses

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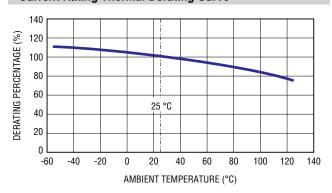
#### **Product Dimensions**

#### Ferrule/C1

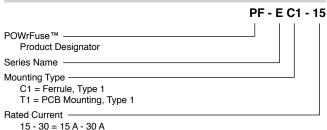


DIMENSIONS:  $\frac{MM}{(INCHES)}$ 

#### **Current Rating Thermal Derating Curve**



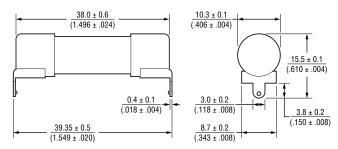
#### **How to Order**



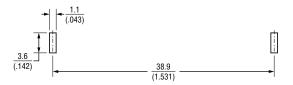
### **Packaging**

Model	Quantity
PF-EC1	10 pcs. / box
PF-ET1	50 pcs. / tray

#### PCB Mounting/T1



#### **Recommended Drilling Pattern**



#### **Wave Soldering Recommendations (for PCB Mounting)**

Profile Feature	Pb-Free Assembly
Preheat: Temperature Max. Temperature Min.	150 °C 100 °C
Solder Pot Temperature	280 °C max.
Solder Dwell Time	8 seconds max.

#### Hand Soldering Recommendations (for PCB Mounting)

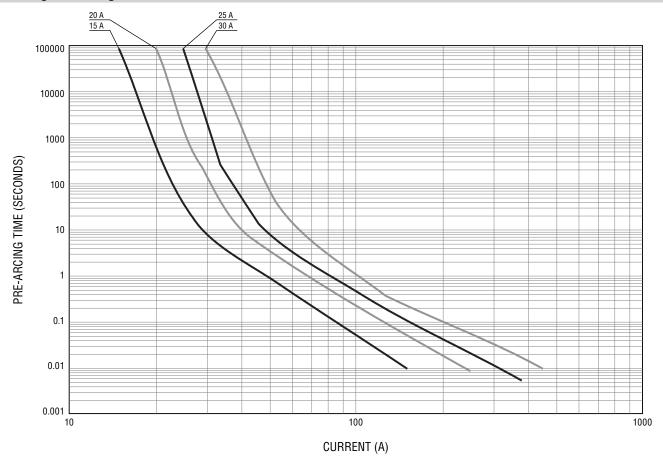
Soldering Iron Temperature	Heating Time	
350 °C ± 5 °C	40 sec. max.	

#### **Typical Part Marking**

Model	Note	Ink Color	Marking
PF-EC1-15	15		BOURNS' ,(M).
PF-EC1-20	20	Black	gPV LISTED
PF-EC1-25	25	DIACK	PF-EC1(Note) A
PF-EC1-30	30		1000V FURS (%)
PF-ET1-15	15		BOURNS' .(I)
PF-ET1-20	20	- Black	gPV LISTED
PF-ET1-25	25		PF-ET1 (Note) A
PF-ET1-30	30		1000V EDES (%)

# PF-E Series – Photovoltaic (gPV) Power Fuses

### **Average Pre-Arcing Time vs. Current Curves**



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