

### 446/447 Series EBF Fuse Fast-Acting



#### Description

The 446 and 447 series are circuit-board mountable, flat profile, fast-acting fuses designed for protection of electronic ballasts and power inverter applications. The 446 series is designed with leads for surface mount applications, and the 447 series is designed with leads for through-hole applications.

These fuses are 100% lead-free and meet the requirements of the RoHS directive.

#### Agency Approvals

Agency	Agency File Number	Ampere Range
	E71611	2A - 10A
	29862	2A - 10A

#### Electrical Characteristics for Series

% of Ampere Rating	Opening Time
100%	4 hours, Minimum
200%	0.15 sec. Min.; 5 sec. Max.

#### Features

- RoHS compliant and 100% lead-free
- Ideal for use in electronic lighting ballast, power supply and power inverter applications.
- Rated for use in 125, 250, 277 and 350 VAC circuits.
- Based on the proven reliability of the automotive MINI<sup>®</sup> Fuse; available from 2 through 10 amperes.
- Evaluated to the requirements of UL 248-1 and CSA 248-1
- Recognized to UL/CSA?NMX 248-1
- Color code on housing CC version for easy amperage identification and application

#### Additional Information



**Datasheet**  
446 Series



**Resources**  
446 Series



**Samples**  
446 Series



**Datasheet**  
447 Series





**Resources**  
447 Series



**Samples**  
447 Series

#### Electrical Specifications by Item

Ampere Rating (A)	Amp Code	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec)	Agency Approvals	
							
2.00	002.	350	100A @ 350VAC 50A @ 125VDC 450 @ 60VDC	0.0563	2.8	x	x
3.00	003.	350		0.0336	9.4	x	x
4.00	004.	350		0.0237	17	x	x
5.00	005.	350		0.0178	25	x	x
7.50	07.5	350		0.0110	68	x	x
10.0	010.	350		0.0073	93	x	x

### Temperature Re-rating Curve



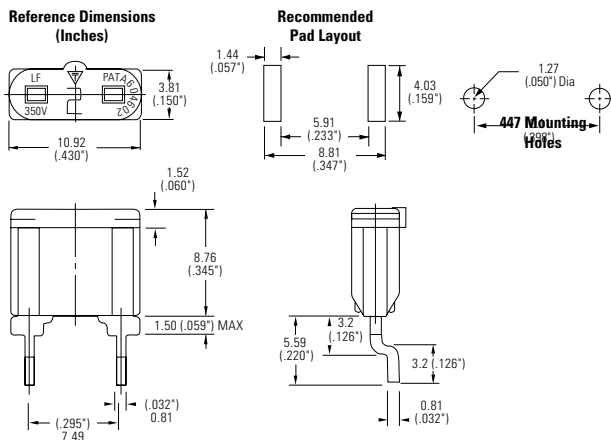
**Note:**  
1. Re-rating depicted in this curve is in addition to the standard re-rating of 25% for continuous operation.

### Soldering Parameters

**446 Series:**  
Reflow Solder — 235°C, 5 seconds maximum.  
No-clean process recommended.  
Wave Solder — Not recommended.  
Non-plated terminal surfaces may not meet MIL-STD-202, Method 208.

**447 Series:**  
Contact Littelfuse for soldering parameters.  
Inside terminal face of each lead is non-plated zinc.  
Non-plated zinc terminal faces may not meet MIL-STD-202, method 208. To ensure that the fuse is acceptable for the application, appropriate application testing should be performed.

### Dimensions



For 447 dimensions, please contact Littelfuse for specifications.

### Product Characteristics

<b>Materials</b>	Body: Plastic Body – Terminations: Tin plated Zinc, Ni barrier
<b>Cleaning</b>	No-cleaning process recommended
<b>Operating Temperature</b>	-60°C to 125°C

### Average Time Current Curves



### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code
<b>446 Series</b>			
24mm Tape and Reel	EIA RS-481-1 IEC 60286-3	800	ZRP
<b>447 Series</b>			
Bulk Pack	-	4000	YXP

### Part Numbering System for Color Code

**Surface Mount Fuses:**  
Change the suffix to ZCCRP

**Through Hole Fuses:**  
Change the suffix to YCCP

Current Rating (Amp)	Housing Color
2	Gray
3	Violet
4	Pink
5	Tan
7.5	Brown
10	Red