

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® 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 ² t (A ² 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

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

Average Time Current Curves



Part Numbering System



Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code |
|--------------------|-----------------------------|----------|---------------------------|
| 446 Series | | | |
| 24mm Tape and Reel | EIA RS-481-1 IEC 60286-3 | 800 | ZRP |
| 447 Series | | | |
| 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 |