

# Surface Mount Fuses

## Subminiature Surface Mount

### RoHS NANO<sup>2</sup>® 250V UMF FUSE Fast-Acting 464 Series



- The Surface Mount Nano<sup>2</sup> 250V UMF product family complies with IEC Publication IEC 60127-4-Universal Modular Fuse-Links [UMF]. This IEC standard has been accepted by UL/CSA making it the first global fuse standard.
- The Nano<sup>2</sup> 250V UMF fuse family is based on the proven NANO<sup>2</sup> Fuse product technology.
- Product is **RoHS Compliant** and compatible with lead-free solders and higher temperature profiles.

#### ELECTRICAL CHARACTERISTICS:

| % of Ampere Rating | Opening Time                                |
|--------------------|---------------------------------------------|
| 125%               | 1 hour, <b>Minimum</b>                      |
| 200%               | 2 minutes, <b>Maximum</b>                   |
| 1000%              | 0.001 sec, <b>Min</b> ; 0.01 sec <b>Max</b> |

**AGENCY APPROVALS:** Listed to IEC 60127-4, Universal Modular Fuse-Links (UMF), 250V. UL Listed. Approved by METI and CCC. K and VDE

**AGENCY FILE NUMBERS:** UL E184655. METI NBK30502-E184655a,b.

**INTERRUPTING RATINGS:** 100 amperes at 250VAC

#### ENVIRONMENTAL SPECIFICATIONS:

**Operating Temperature:** -55°C to 125°C.

**Shock:** MIL-STD-202, Method 213, Test Condition A.

**Vibration:** MIL-STD-202, Method 201 (10–55 Hz).

**Insulation Resistance (After Opening):** IEC60127-4 (0.1MΩ min @ 500VDC).

**Resistance to Soldering Heat:** IEC60127-4.

**Thermal Shock:** MIL-STD-202, Method 107, Test Condition B (-65 to 125°C, 5 cycles).

**Moisture Resistance:** MIL-STD-202, Method 106

#### PHYSICAL SPECIFICATIONS:

**Materials:** Body: High Performance Ceramic  
Terminations: Silver plated brass.

#### Soldering Parameters:

Wave Solder — 260°C, 10 seconds maximum

Reflow Solder — 260°C, 30 seconds maximum

**Solderability:** IEC60127-4.

**PACKAGING SPECIFICATIONS:** 24mm Tape and Reel per EIA-RS481-1 (IEC 286, part 3); 1,500 per reel, add packaging suffix, DR.

#### PATENTED

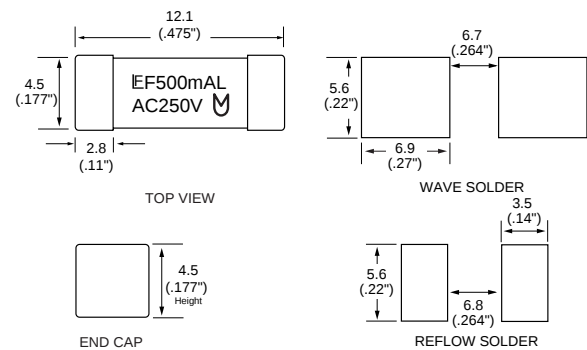
#### ORDERING INFORMATION:

| Catalog Number | Ampere Rating | Voltage Rating | Nominal Cold Resistance (Ohms) | Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec) |
|----------------|---------------|----------------|--------------------------------|-------------------------------------------------------|
| 0464.500       | 0.5           | 250            | 0.283                          | 0.3                                                   |
| 0464 001.      | 1.0           | 250            | 0.100                          | 0.8                                                   |
| 0464 1.25      | 1.25          | 250            | 0.059                          | 1.2                                                   |
| 0464 01.6      | 1.6           | 250            | 0.048                          | 1.9                                                   |
| 0464 002.      | 2.0           | 250            | 0.038                          | 2.8                                                   |
| 0464 02.5      | 2.5           | 250            | 0.032                          | 4.5                                                   |
| 0464 3.15      | 3.15          | 250            | 0.024                          | 9.4                                                   |
| 0464 004.      | 4.0           | 250            | 0.018                          | 15.1                                                  |
| 0464 005.      | 5.0           | 250            | 0.014                          | 23.1                                                  |
| 0464 06.3      | 6.3           | 250            | 0.011                          | 40.0                                                  |

\*For information and availability of additional ratings please contact Littelfuse



#### Reference Dimensions:



#### Average Time Current Curves

