

# Surface Mount Fuses

## Thin-Film Surface Mount

### 0603 Very Fast-Acting Fuse 431 Series



• For new designs please use the 434 or 467 Series products.

#### ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time at 25°C
100%	4 hours, <b>Minimum</b>
200%	5 seconds, <b>Maximum</b>
300%	0.2 seconds, <b>Maximum</b>

**AGENCY APPROVALS:** Recognized under the Components Program of Underwriters Laboratories and Certified by CSA.

**AGENCY FILE NUMBERS:** UL E10480, CSA LR 29862.

#### INTERRUPTING RATINGS:

.25–1A            50 amperes at 32 VAC/VDC  
 1–5A              35 amperes at 32 VAC/VDC

#### ENVIRONMENTAL SPECIFICATIONS:

**Operating Temperature:** –55°C to 90°C. Consult temperature rerating chart on page 4. For operation above 90°C contact Littelfuse.

**Vibration:** Withstands 10-55 HZ per MIL-STD-202F, Method 201A and 10-2000 HZ at 20 G's per MIL-STD-202F, Method 204D, Condition D.

#### Insulation Resistance (After Opening):

Greater than 500,000 ohms.

**Resistance To Soldering Heat:** Withstands 60 seconds above 200°C up to 260°C, maximum.

**Thermal Shock:** Withstands 5 cycles of –50°C to 125°C.

#### PHYSICAL SPECIFICATIONS:

**Materials: Body:** Epoxy Substrate  
 Terminations: Copper/Nickel/Tin-Lead (95/5)  
 Cover Coat: Conformal Coating

#### Soldering Parameters:

Reflow Solder— 260°C, 30 seconds maximum

**PACKAGING SPECIFICATIONS:** 8mm Tape and Reel per EIA-RS481-1 (IEC 286, part 3); 5,000 per reel, add packaging suffix, NR.

#### PATENTED

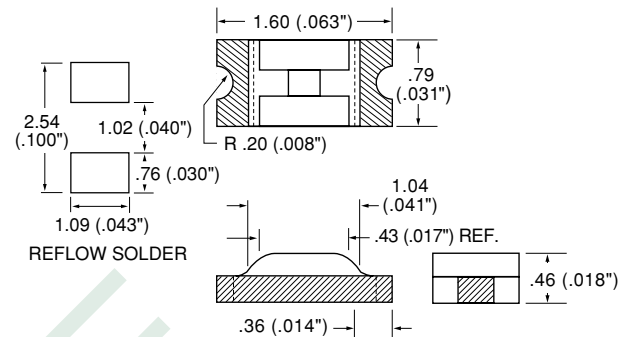
#### ORDERING INFORMATION:

For New Designs Use 434 or 467 Series.				
Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohm <sup>1</sup>	Melting Pt (A <sup>2</sup> Sec.)
431.250	0.25	32	0.375	0.0030
431.375	0.375	32	0.265	0.0053
431.500	0.5	32	0.193	0.0087
431.750	0.75	32	0.114	0.0171
431.001	1	32	0.072	0.0210
431.01.5	1.5	32	0.048	0.0526
431.002	2	32	0.036	0.104
431.02.5	2.5	32	0.028	0.175
431.003	3	32	0.023	0.198
431.03.5	3.5	32	0.019	0.265
431.004	4	32	0.017	0.352
431.005	5	32	0.013	1.600

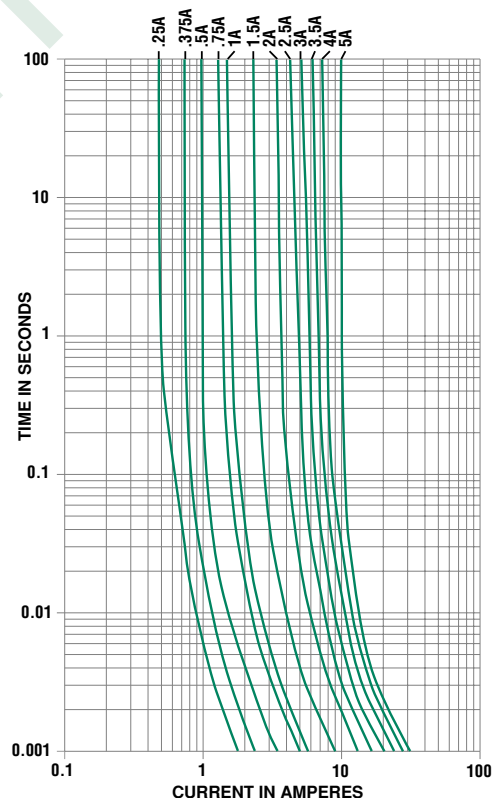
<sup>1</sup>Measured at 10% of rated current, 25°C.



#### Reference Dimensions:



#### Average Time Current Curves



10  
 SURFACE MOUNT FUSES