

SUBMINIATURE SURFACE MOUNT

NANO²® SMF Very Fast-Acting Type Fuse



The Nano² SMF Fuse is a very small, square surface mount fuse that is also available in a surface mount holder.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
100%	1/16–15	4 hours, Minimum
200%	1/16–10	5 seconds, Maximum
	12–15	20 seconds, Maximum

AGENCY APPROVALS: Recognized under the Components Program of Underwriters Laboratories and Certified by CSA. Approved by MITI from 1 through 5 amperes.

AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

INTERRUPTING RATINGS:

1/16 – 8A	50 amperes at 125 VAC/VDC 300 amperes at 32 VDC
10A	35 amperes at 125 VAC/50 amperes at 125 VDC 300 amperes at 32 VDC
12A – 15A	50 amperes at 65 VAC/VDC 300 amperes at 24 VDC

ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature: –55°C to 125°C.

Shock: MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds).

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

Salt Spray: MIL-STD-202, Method 101, Test Condition B.

Insulation Resistance (After Opening): MIL-STD-202, Method 302, Test Condition A, (10,000 ohms minimum).

Resistance to Soldering Heat: MIL-STD-202, Method 210, Test Condition F (20 sec. at 260°C).

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

Moisture Resistance: MIL-STD-202, Method 106, High Humidity (90–98 RH), Heat (65°C).

PHYSICAL SPECIFICATIONS:

Materials: Body: Ceramic

Terminations: Tin-Lead Alloy or Silver
Plated Brass Caps.

Soldering Parameters:

Wave Solder — 260°C, 10 seconds maximum

Reflow Solder — 260°C, 30 seconds maximum

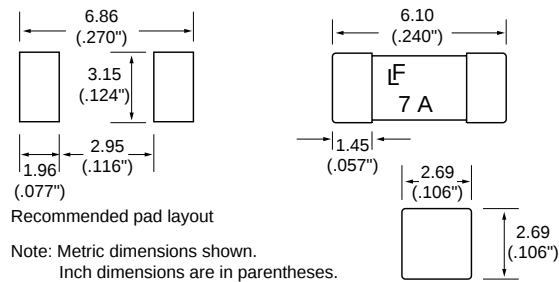
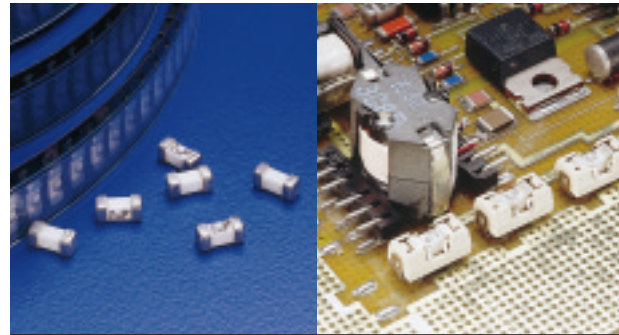
Solderability: MIL-STD-202, Method 208.

PACKAGING SPECIFICATIONS: 12mm Tape and Reel per EIA-RS481 (IEC 286, part 3); 1,000 per reel, add packaging suffix, MR.

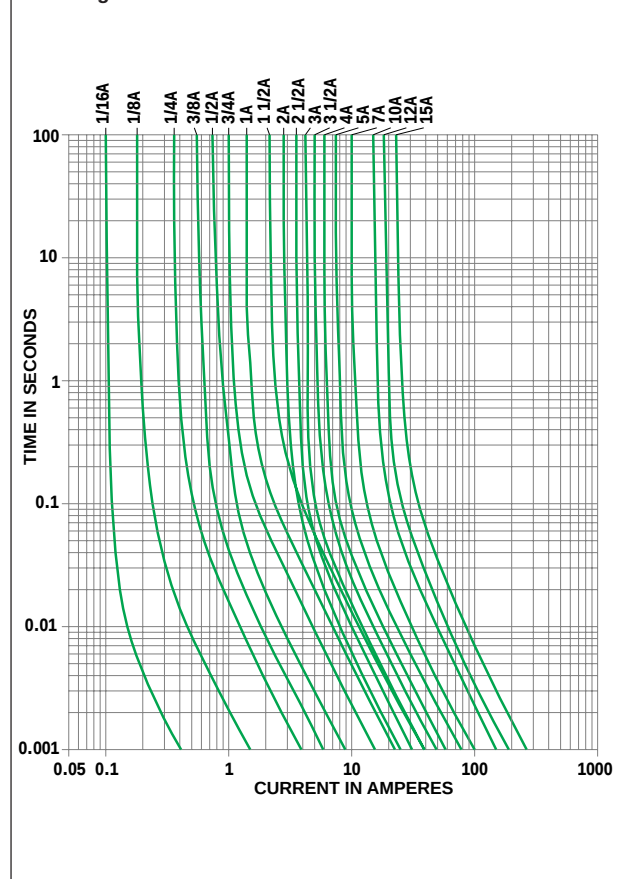
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ORDERING INFORMATION:

Tin-Lead Plated Catalog #	Silver Plated Catalog #	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I ² t A ² Sec.
—	R451.062	1/16	125	5.50	0.00019
—	R451.125	1/8	125	1.70	0.00286
R451.250	0453.250	1/4	125	1.05	0.01126
R451.375	0453.375	3/8	125	0.610	0.0425
R451.500	0453.500	1/2	125	0.420	0.0795
R451.750	0453.750	3/4	125	0.245	0.185
R451.001.	0453.001.	1	125	0.153	0.459
R451.01.5	0453.01.5	1 1/2	125	0.0630	0.853
R451.002.	0453.002.	2	125	0.0367	0.53
R451.02.5	0453.02.5	2 1/2	125	0.0286	1.029
R451.003.	0453.003.	3	125	0.0227	1.65
R451.03.5	0453.03.5	3 1/2	125	0.0200	2.469
R451.004.	0453.004.	4	125	0.0160	3.152
R451.005.	0453.005.	5	125	0.0125	5.566
R451.007.	0453.007.	7	125	0.0090	10.32
R451.010.	0453.010.	10	125	0.0056	26.46
R451.012.	0453.012.	12	65	0.0049	47.97
R451.015.	0453.015.	15	65	0.0037	97.82



Average Time Current Curves



Refer to pg. 102 for SMF Omni-Blok® Holder, Series 154 000.