

Square Ceramic Surface Mount Quick Acting Fuse

0679L Series 0410 Series

RoHS Compliant

Features

- Quick Acting, 2410 SMD
- Compatible with 260 °C, IR Pb-free solder process
- Wide range of current rating from 250mA to 20A
- Wide operating temperature range, -55 °C to 125 °C
- Tape & Reel for auto-insert SMD process
- RoHS compliant with exemption 7a
- Halogen Free, (MSL = 1)



Applications

- Notebook
- LCD monitor
- PC cameras

- Office equipment
- Industrial equipment
- Medical equipment
- POE/POE+
- LCD / LED monitor
- Power supply
- LCD / LED TV



Approvals

Electrical Characteristics (UL/CSA/STD. 248-14)

Safety Agency Approvals

| VOLTAGE RATING | AMPERE RANGE (VOLT Interrupting Rating) | Blow Time | | | SAFETY | SAFETY |
|----------------|---|-----------|--------|-------|--------|--------|
| | | 100% | 4 Hrs. | N/A | | |
| AC DC | 250mA - 20A / 125V @ 50A AC 125V @ 300A DC | 200% | N/A | 5 Sec | UL US | E20624 |

* I.R. = INTERRUPTING RATING = SHORT CIRCUIT RATING (AMPS)

Physical Specifications

| | |
|-----------|--|
| Materials | Body : Ceramic |
| | Terminations : Silver Plated Caps |
| Marking | On Fuse : |
| | "Current Rating", "Q", "L" – laser marked on ceramic tube, "bel" stamped in end caps. |
| | On Label : |
| | "bel", "0679L", "Current Rating", "Voltage Rating", "Interrupting Rating", "Appropriate Safety Logos" and "RoHS", "RoHS" (China RoHS compliant). |

Specifications subject to change without notice

Type 0679L Series

Square Ceramic Surface Mount Quick-Acting Fuse

HF 0679L Series - 2410 Size

RoHS Compliant

Environmental Specifications

| | |
|-------------------------------|--|
| Shock Resistance | MIL-STD-202G, Method 213B, Test Condition 1 |
| Vibration Resistance | MIL-STD-202G, Method 201A(10-55 Hz,0.06 inch, total excursion). |
| Salt Spray Resistance | MIL-STD-202G, Method 101E, Test Condition B(48 hrs). |
| Insulation Resistance | MIL-STD-202G, Method 302, Test Condition A (After Opening) 10,000 ohms minimum. |
| Moisture Resistance | MIL-STD-202G, Method 208H |
| Resistance to solder Heat | MIL-STD-202G, Method 210F, Test Condition C.Top Side(260 °C, 20 sec) MIL-STD-202G, Method 210F, Test Condition D.Bottom Side(260 °C,10 sec) |
| Thermal Shock | MIL-STD-202G, Method 107G, Test Condition B (-65 °C to +125 °C). |
| Operating Temperature | -55 °C to +125 °C |
| Temperature Sensitivity Level | 1 (According to IPC J-Std-020) |

| |
|---------------|
| Vibration |
| Salt Spray |
| Insulation |
| Solderability |
| Resistance |
| Thermal |
| Operating |
| Moisture |

Specifications

Electrical Specifications

| Ampere Rating (A) | Typical Cold Resistance (ohm) | Volt-drop @100% In (Volt) max. | Voltage and Interrupting Ratings | Melting I ² T <10 m Sec (A ² Sec) | Melting I ² T @10 In (A ² Sec) | Maximum Power Dissipation (mW) | Agency Approvals | Part Number | | |
|-------------------------------|-------------------------------|--------------------------------|----------------------------------|---|--|--------------------------------|------------------|--------------|--------------|-------|
| | | | | | | | | | Y | Y |
| 0.01 | 0.02 | 0.13 | Y | | 0679L0250-XX | 250mA | 0.61 | 0.530 | | |
| 0.04 | 0.04 | 0.18 | Y | | 0679L0375-XX | 375mA | 0.33 | 0.480 | | |
| 0.08 | 0.08 | 0.24 | Y | | 0679L0500-XX | 500mA | 0.24 | 0.470 | | |
| 0.15 | 0.15 | 0.26 | Y | | 0679L0630-XX | 630mA | 0.17 | 0.410 | | |
| 0.24 | 0.26 | 0.29 | Y | | 0679L0750-XX | 750mA | 0.14 | 0.380 | | |
| 0.280 | | | 0.51 | 0.54 | 0.28 | Y | | 0679L1000-XX | 1A | 0.09 |
| 0.250 | | | 0.21 | 0.22 | 0.31 | Y | | 0679L1250-XX | 1.25A | 0.072 |
| 0.250 | | | 0.32 | 0.29 | 0.38 | Y | | 0679L1500-XX | 1.5A | 0.058 |
| 0.240 | | | 0.32 | 0.33 | 0.45 | Y | | 0679L2000-XX | 2A | 0.041 |
| 0.240 | | | 0.96 | 1.13 | 0.60 | Y | | 0679L2500-XX | 2.5A | 0.032 |
| See Table of Safety Approvals | | | | | | | | | | |
| | | | 0679L3500-XX | 3.5A | 0.022 | 0.220 | 2.0 | 2.2 | 0.77 | Y |
| | | | 0679L4000-XX | 4A | 0.020 | 0.220 | 3.1 | 3.5 | 0.63 | Y |
| | | | 0679L5000-XX | 5A | 0.014 | 0.200 | 5.3 | 5.5 | 1.00 | Y |
| | | | 0679L6000-XX | 6.3A | 0.011 | 0.180 | 8.7 | 8.8 | 1.20 | Y |
| | | | 0679L7000-XX | 7A | 0.010 | 0.175 | 11.1 | 10.8 | 1.23 | Y |
| 0.0089 | 0.170 | | | 14.8 | 14.1 | 1.36 | Y | | 0679L8000-XX | 8A |
| 0.0066 | 0.150 | | | 25.7 | 25.7 | 1.50 | Y | | 0679L9100-XX | 10A |
| 0.0056 | 0.140 | | | 41.0 | 38.9 | 1.68 | Y | | 0679L9120-XX | 12A |
| 0.0038 | 0.130 | | | 76.7 | 103.5 | 1.95 | Y | | 0679L9150-XX | 15A |
| 0.0030 | 0.130 | | | 130.5 | 128.0 | 2.60 | Y | | 0679L9200-XX | 20A |

Standard ordering information:

Conducted with the fuses soldered to a printed circuit boards with a nominal thickness of 1.6 mm. The copper test circuit trace was a printed circuit with an overall length of 10 mm, copper thickness/width as described below. The printed circuit was mounted by screws to a test fixture having brass blocks for connection of the test leads. All samples were soldered to the test boards by the manufacturer.

| Fuse rating | Test Board Trace Dimensions |
|--------------|-----------------------------|
| 250 mA – 5 A | 1 oz. copper, 5.0 mm wide |
| 6 A – 20 A | 3 oz. copper, 10 mm wide. |

Specifications subject to change without notice

Consult manufacturer for other ratings and test board dimensions.

NOTES:
All tests were conducted on boards with an overall length of 10 mm. Test leads were mounted to the boards by the manufacturer.



Type 0679L

High Speed Quick Acting Fuse

Square Ceramic Surface Mount

RoHS Compliant

HF 0679L Series - 2410 Size

Curve

Average Time Current Curve

CURRENT CHARACTERISTIC CURVE

0679L - TIME CURRENT CURVE

Square Ceramic Surface Mount Quick Acting Fuse

[HF] 0679L Series - 2410 Size

RoHS Compliant

Fuse FGNO Explanation

0679 L [XXXX] - XX

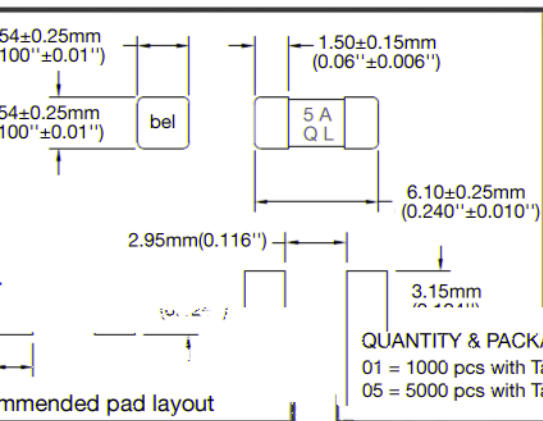
0679L=0679L; [XXXX]=Ampere Rating; XX=See Ordering Information as below

| Fraction | Decimal | Milliamps | Bel FGNO[XXXX] | Fraction | Decimal | Amps | Bel FGNO[XXXX] |
|----------|---------|-----------|----------------|----------|---------|------|----------------|
| 1/4 | 0.250 | 250 | 0250 | 1-1/4 | 1.25 | 1.25 | 1250 |
| 3/8 | .375 | 375 | 0375 | 1-1/2 | 1.500 | 1.5 | 1500 |
| 1/2 | .500 | 500 | 0500 | | | | |

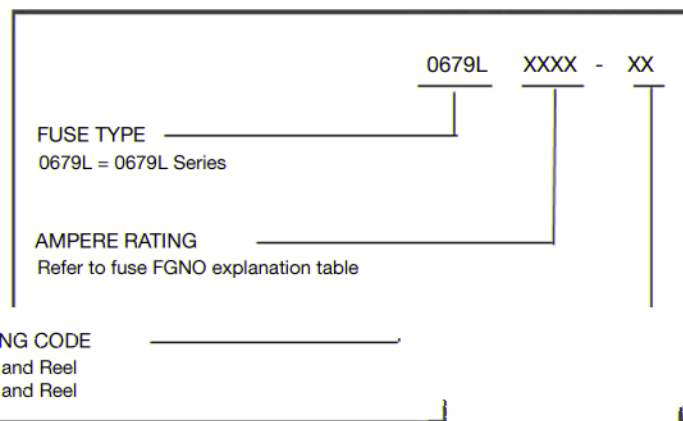
| | | | | | | | |
|-----|------|-----|------|-------|-----|-----|------|
| | .630 | 630 | 0630 | | 2.0 | 2 | 2000 |
| 3/4 | .750 | 750 | 0750 | 2-1/2 | 2.5 | 2.5 | 2500 |
| | | | | | 3.0 | 3 | 3000 |
| | | | | 3-1/2 | 3.5 | 3.5 | 3500 |
| | | | | | 4.0 | 4 | 4000 |
| | | | | | 5.0 | 5 | 5000 |
| | | | | | 6.3 | 6.3 | 6300 |
| | | | | | 7.0 | 7 | 7000 |
| | | | | | 8.0 | 8 | 8000 |

| | | | | | | |
|--|--|--|--|--|----|------|
| | | | | | 10 | 9100 |
| | | | | | 12 | 9120 |
| | | | | | 15 | 9150 |
| | | | | | 20 | 9200 |

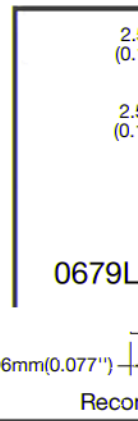
Mechanical Dimensions



Ordering Information



Mechanical



Packaging

| Reel Diameter | Standard | Quantity | Code |
|------------------------------|--------------------|----------|------|
| with 13 inches Diameter reel | EIA Standard 481-E | 5000 | 05 |
| with 7 inches Diameter reel | EIA Standard 481-E | 1000 | 01 |

| |
|-----------------|
| 12 mm wide tape |
| 12 mm wide tape |

Specifications subject to change without notice