

Accu-Guard® II Low Current

LGA Miniature 0402 and 0603 Size Thin-Film Fuses



The new F0402G and F0603G Accu-Guard® series of fuses is based on thin-film technology which allows precise control of the component electrical and physical characteristics that is not possible with standard fuse technologies. The Accu-Guard Low Current series encompasses the lowest current ratings in compact 0402 and 0603 packages and features LGA terminations.

ELECTRICAL SPECIFICATIONS

Operating temperature: -55°C to +125°C

Current carrying capacity:

- 55°C to -11°C 107% of rating
- 10°C to +60°C 100% of rating
- +61°C to +100°C 85% of rating
- +101°C to +125°C 80% of rating

Rated voltage: 63V (F0603G), 32V (F0402G)

Post-fusing resistance: >1MΩ

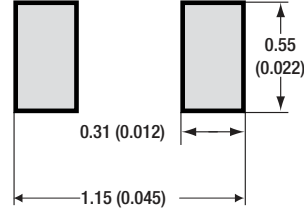
Interrupt rating: 50A

RECOMMENDED PAD LAYOUT

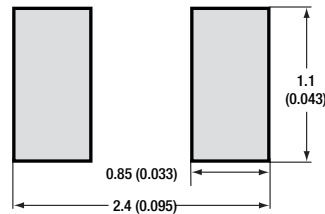
millimeters (inches)



F0402G

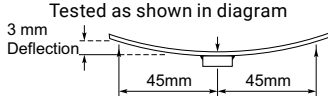


F0603G



| Part Number | Current Rating A | Resistance @0.1 x I rated Ω (max.) | Voltage Drop @ I rated mV (max.) | Fusing Current (within 5 sec) A | Pre-Arc I2t @10x I rated A ² -sec (typ) | Color Code |
|-------------------------------|------------------|------------------------------------|----------------------------------|---------------------------------|--|------------|
| F0402G0R02FNTR F0603G0R02FNTR | 0.028 | 7.5 | 290 | 0.070 | 6 x 10 ⁻⁷ | Green |
| F0402G0R03FNTR F0603G0R03FNTR | 0.0375 | 4.8 | 230 | 0.094 | 8 x 10 ⁻⁷ | Red |
| F0402G0R05FNTR F0603G0R05FNTR | 0.050 | 3.4 | 250 | 0.125 | 2 x 10 ⁻⁶ | Blue |
| F0402G0R06FNTR F0603G0R06FNTR | 0.062 | 2.5 | 280 | 0.155 | 2 x 10 ⁻⁶ | Yellow |
| F0402G0R07FNTR F0603G0R07FNTR | 0.075 | 2.0 | 280 | 0.188 | 4 x 10 ⁻⁶ | Brown |
| F0402G0R10FNTR F0603G0R10FNTR | 0.100 | 2.4 | 300 | 0.250 | 7 x 10 ⁻⁶ | Red |
| F0402G0R12FNTR F0603G0R12FNTR | 0.125 | 1.6 | 250 | 0.312 | 1 x 10 ⁻⁵ | White |
| F0402G0R15FNTR F0603G0R15FNTR | 0.150 | 1.2 | 220 | 0.375 | 2 x 10 ⁻⁵ | Green |
| F0402G0R20FNTR F0603G0R20FNTR | 0.200 | 0.8 | 210 | 0.500 | 4 x 10 ⁻⁵ | Pink |

ENVIRONMENTAL CHARACTERISTICS

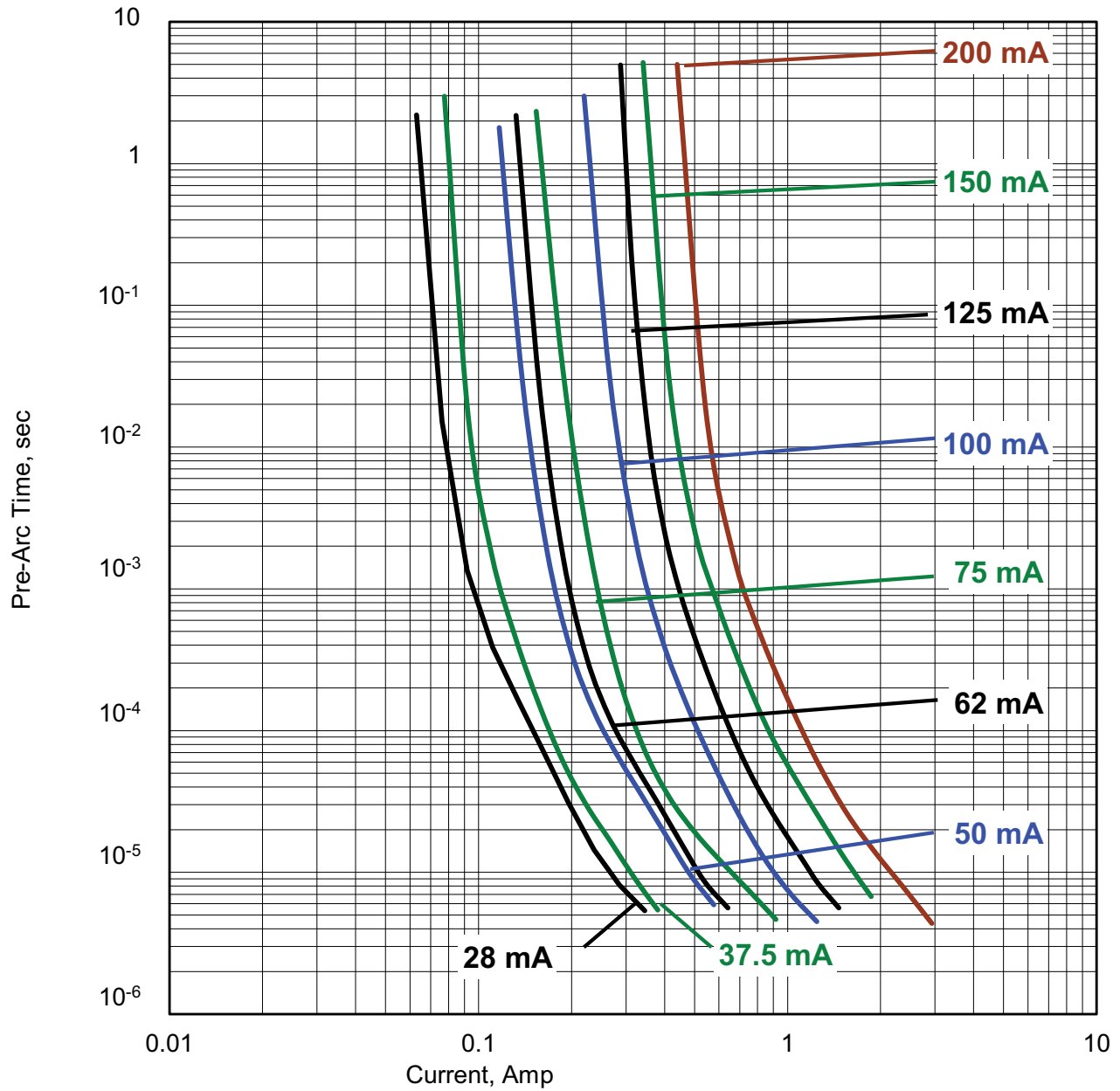
| Test | Conditions | Required |
|---------------------|---|---|
| Solderability | Components completely immersed in a solder bath at 245 ±5°C for 3 secs. | Total area of imperfections in solder coatup to 5% of the land surface area |
| Leach Resistance | Components completely immersed in a solder bath at 255 ±5°C for 60 secs. | Dissolution of termination ≤ 15% of the land surface area |
| Storage | 12 months minimum with components stored in "as received" packaging. | Good solderability |
| Shear | Components mounted to a substrate. Increasing shearing force applied parallel to the substrate till destruction. | Destruction at 5N force minimum |
| Temperature Cycling | Components mounted to a flexible substrate (e.g. FR - 4). 1000 cycles -55°C to +125°C. | No Visible damage ΔR/R<10% |
| Bend | Tested as shown in diagram  | No visible damage ΔR/R<10% |

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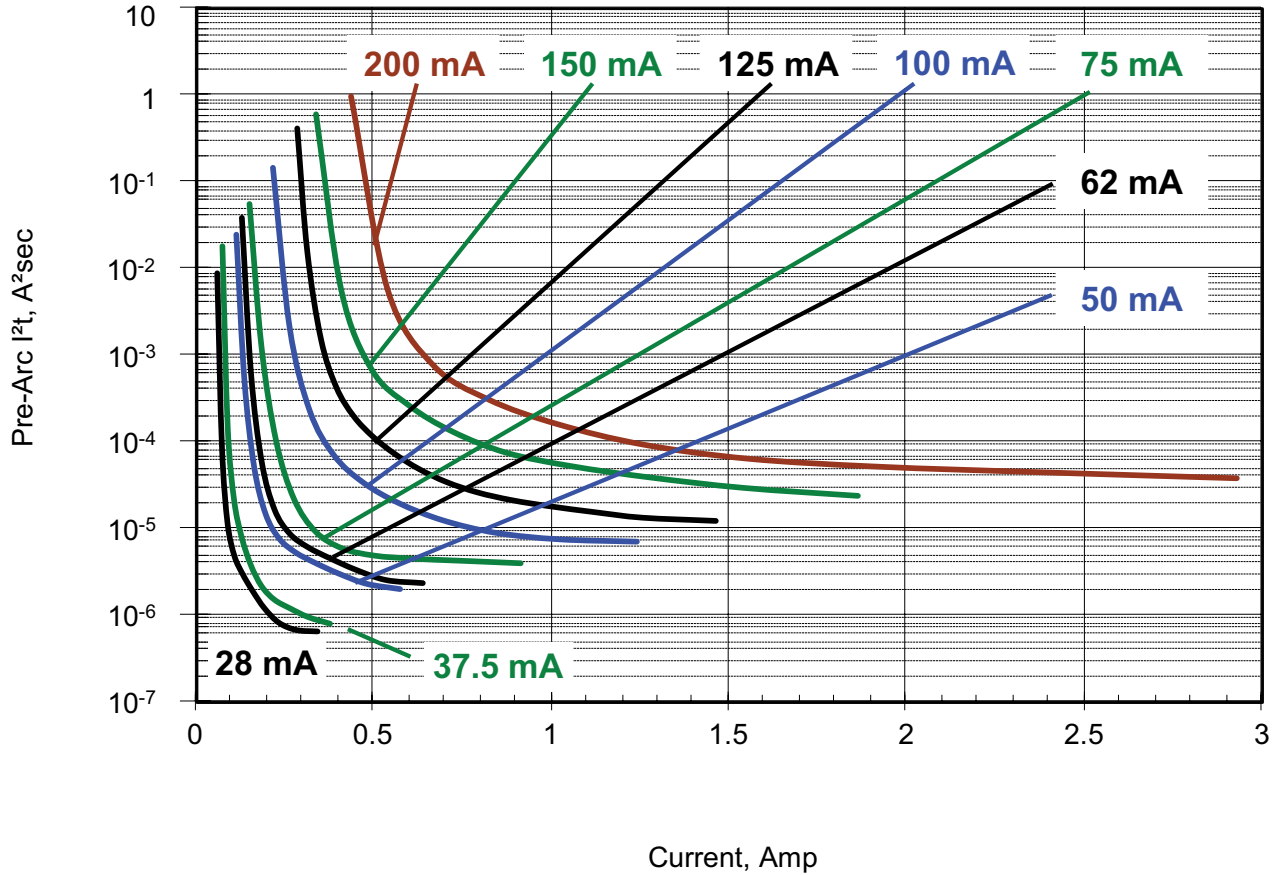
FUSE TIME-CURRENT CHARACTERISTICS



Accu-Guard® II Low Current LGA Miniature 0402 and 0603 Size Thin-Film Fuses



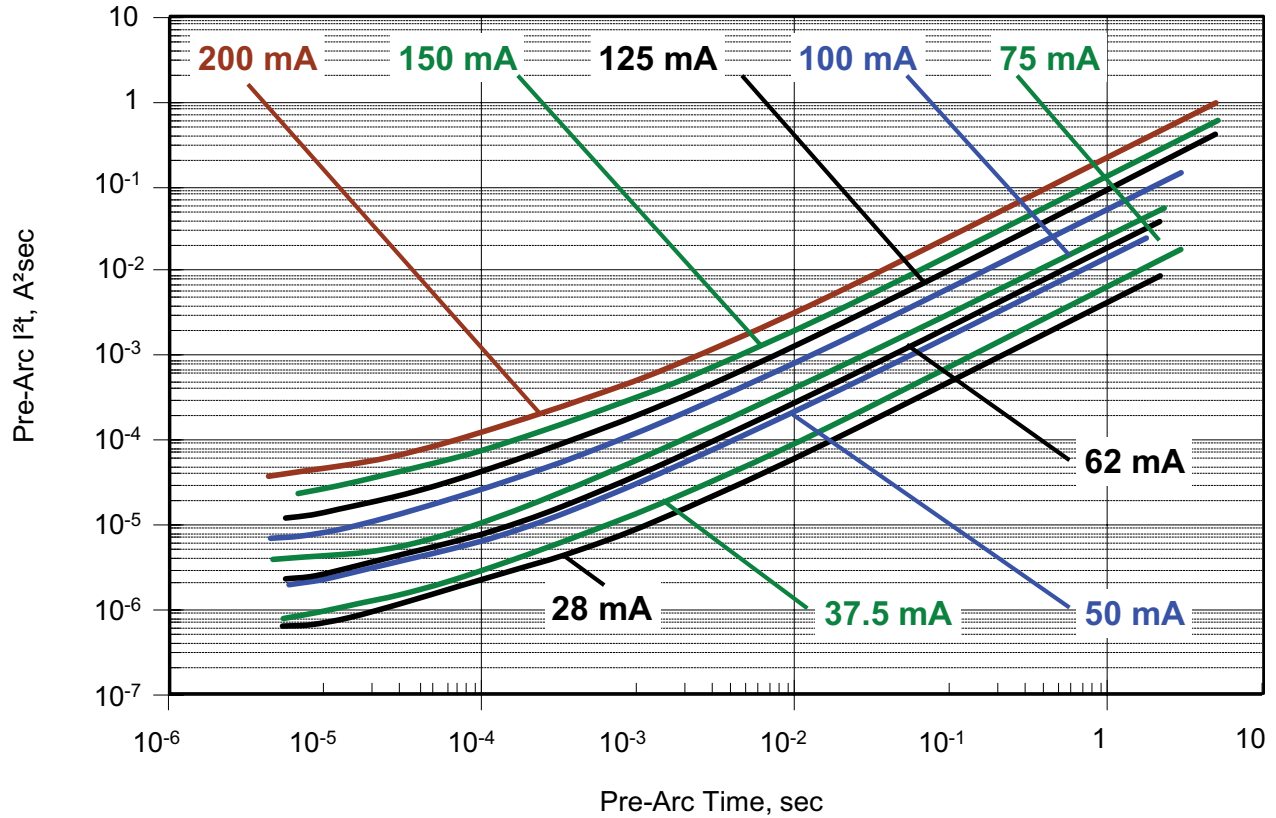
FUSE PRE-ARC JOULE INTEGRALS VS CURRENT



Accu-Guard® II Low Current LGA Miniature 0402 and 0603 Size Thin-Film Fuses



FUSE PRE-ARC JOULE INTEGRALS VS PRE-ARC TIME



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Kyocera AVX:

[F1206B2R00FWTR](#) [F0402E0R50FSTR](#) [F0603E0R37FSTR](#) [F0603E2R00FSTR](#) [F0603E1R50FSTR](#)
[F0402E1R50FSTR](#) [F0805B0R75FWTR](#) [F0805B1R50FWTR](#) [F0603E0R50FSTR](#) [F1206B0R50FWTR](#)
[F0603C0R25FWTR](#) [F1206B0R25FWTR](#) [F0805B2R00FWTR](#) [F0805B0R50FWTR](#) [F0603C0R50FWTR](#)
[F0805B3R00FWTR](#) [F0805B1R00FWTR](#) [F0402E1R00FSTR](#) [F1206B1R00FWTR](#) [F1206B1R00FSTR](#)
[F0402E2R00FSTR](#) [F0805B2R50FWTR](#) [F0402E0R75FSTR](#) [F0603C2R00FWTR](#) [F1206B0R20FSTR](#)
[F0805B0R50FSTR](#) [F1206B0R37FWTR](#) [F0603C0R20FWTR](#) [F1206A0R25FWTR](#) [F1206A0R50FWTR](#)
[F1206A1R00FWTR\3](#) [F1206A2R00FWTR](#) [F1206A2R00FWTR\3](#) [F0805B0R25FSTR](#) [F1206B3R00FSTR](#)
[F0603G0R05FNTR](#) [F0603G0R10FNTR](#) [F0603G0R12FNTR](#) [F0603G0R20FNTR](#) [F1206A1R00FWTR](#)
[F0603C1R00FWTR](#) [F0603E1R25FSTR](#) [F0603E3R00FSTR](#) [F1206B3R00FWTR](#) [F0805B0R25FWTR](#)
[F0603C1R75FWTR](#) [F1206B1R50FWTR](#) [F0603C3R00FWTR](#) [F0603C0R37FWTR](#) [F0603E1R00FSTR](#)
[F0612D5R00FWTR](#) [F0612D4R00FWTR](#) [F0603C1R50FWTR](#) [F0603E0R25FSTR](#) [F0603E1R75FSTR](#)
[F0402E0R25FSTR](#) [F0603C0R75FWTR](#) [F0603E0R75FSTR](#) [F0603E2R50FSTR](#) [F0603C2R50FWTR](#)
[F0603C0R25FWTR\3](#) [F0603E2R00FSTR\3](#) [F0805B0R75FSTR](#) [F0805B1R00FWTR\3](#) [F0805B1R25FWTR](#)
[F0805B1R50FWTR\3](#) [F0805B2R00FSTR](#) [F1206A0R20FWTR](#) [F1206A0R37FWTR](#) [F1206A0R75FWTR](#)
[F1206A1R25FWTR](#) [F1206A1R50FWTR](#) [F1206A1R75FWTR](#) [F1206B0R25FSTR](#) [F0612D5R00FSTR](#)
[F0805B1R00FSTR](#) [F0805B1R50FSTR](#) [F0805B2R50FSTR](#) [F0805B3R00FSTR](#) [F0805B3R00FSTR\3](#)
[F0805B3R00FWTR\3](#) [F1206B0R37FSTR](#) [F1206B0R50FSTR](#) [F1206B1R50FSTR](#) [F1206B2R00FSTR](#)
[F0402G0R12FNTR](#) [F0402G0R05FNTR](#) [F0402G0R06FNTR](#) [F0402G0R07FNTR](#) [F0402G0R10FNTR](#)
[F0402G0R15FNTR](#) [F0402G0R20FNTR](#) [F0603G0R06FNTR](#) [F0603G0R07FNTR](#) [F0603G0R15FNTR](#)
[F1206A2R00FWTR\500](#) [F0603G0R02FNTR](#) [F0603E0R25FSTR\INT](#) [F0603E0R25FSTR\GC](#) [F0603E1R00FSTR\GC](#)