

# 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

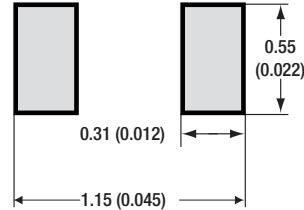
Interrupt rating: 50A

### RECOMMENDED PAD LAYOUT

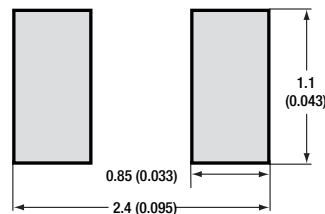
millimeters (inches)



**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 <sup>2</sup> -sec (typ)	Color Code
F0402G0R02FNTR F0603G0R02FNTR	0.028	7.5	290	0.070	6 x 10 <sup>-7</sup>	Green
F0402G0R03FNTR F0603G0R03FNTR	0.0375	4.8	230	0.094	8 x 10 <sup>-7</sup>	Red
F0402G0R05FNTR F0603G0R05FNTR	0.050	3.4	250	0.125	2 x 10 <sup>-6</sup>	Blue
F0402G0R06FNTR F0603G0R06FNTR	0.062	2.5	280	0.155	2 x 10 <sup>-6</sup>	Yellow
F0402G0R07FNTR F0603G0R07FNTR	0.075	2.0	280	0.188	4 x 10 <sup>-6</sup>	Brown
F0402G0R10FNTR F0603G0R10FNTR	0.100	2.4	300	0.250	7 x 10 <sup>-6</sup>	Red
F0402G0R12FNTR F0603G0R12FNTR	0.125	1.6	250	0.312	1 x 10 <sup>-5</sup>	White
F0402G0R15FNTR F0603G0R15FNTR	0.150	1.2	220	0.375	2 x 10 <sup>-5</sup>	Green
F0402G0R20FNTR F0603G0R20FNTR	0.200	0.8	210	0.500	4 x 10 <sup>-5</sup>	Pink

### ENVIRONMENTAL CHARACTERISTICS

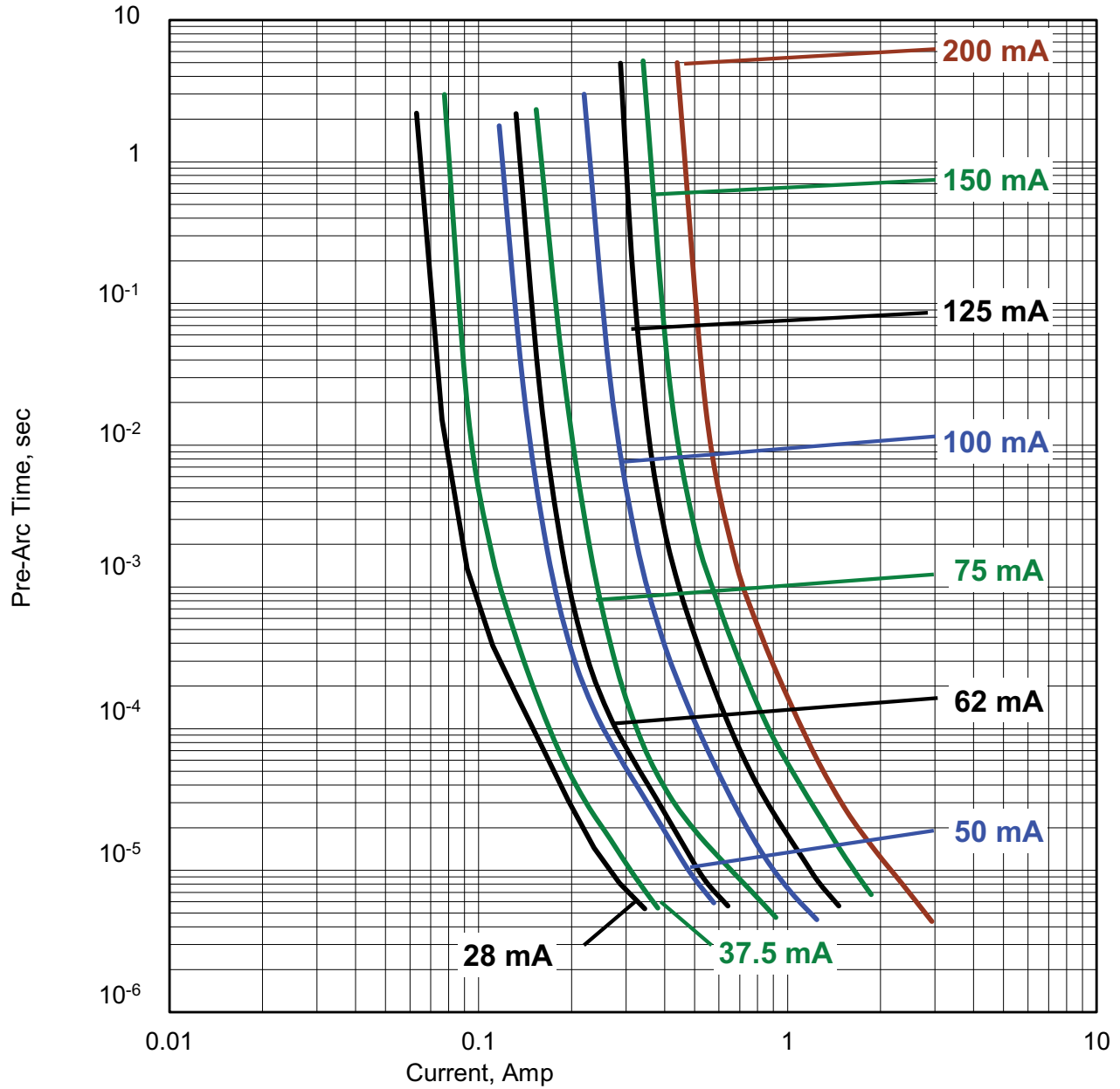
Test	Conditions	Required
Solderability	Components completely immersed in a solder bath at 245 ±5°C for 3 secs.	Total area of imperfections in solder coatup to 5% of the land surface area
Leach Resistance	Components completely immersed in a solder bath at 255 ±5°C for 60 secs.	Dissolution of termination ≤ 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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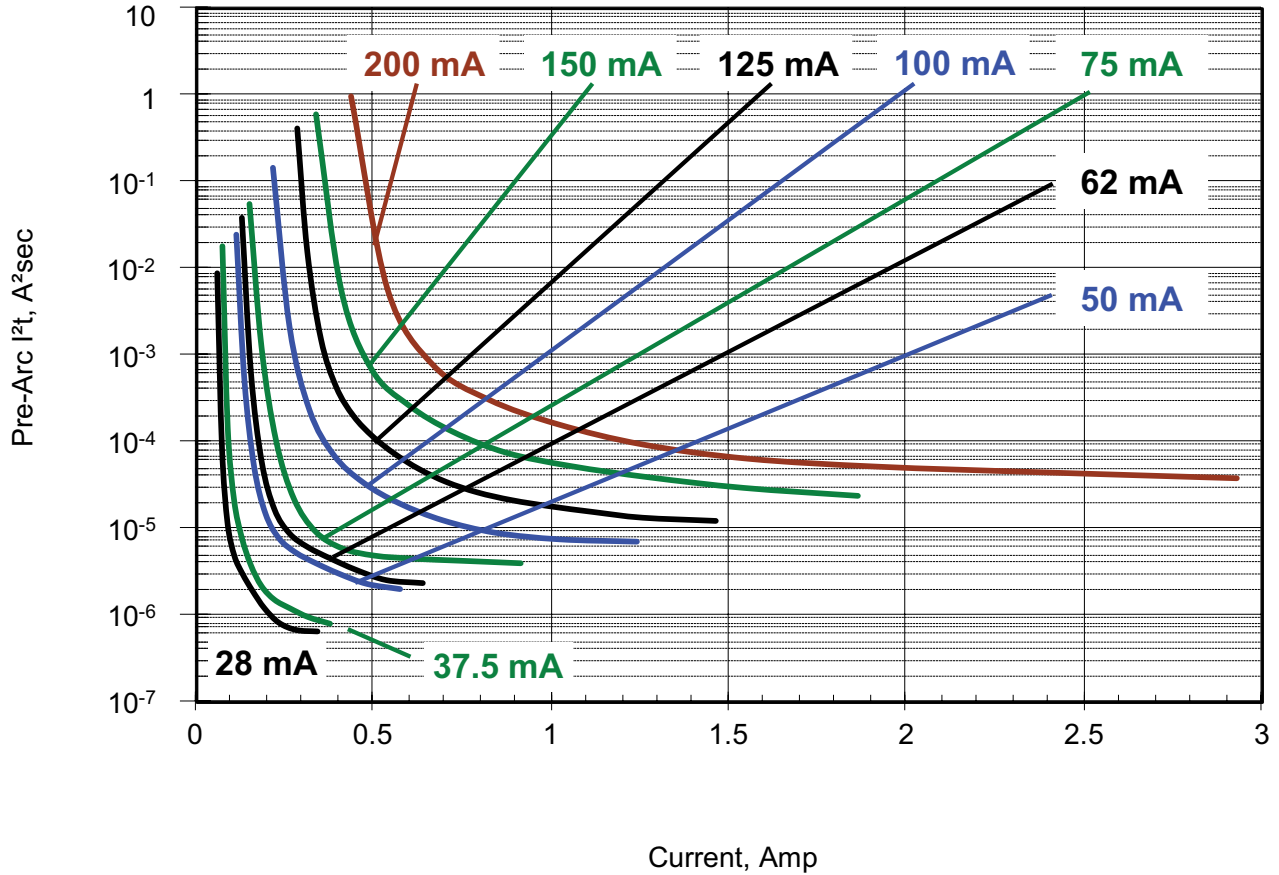
### FUSE TIME-CURRENT CHARACTERISTICS



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



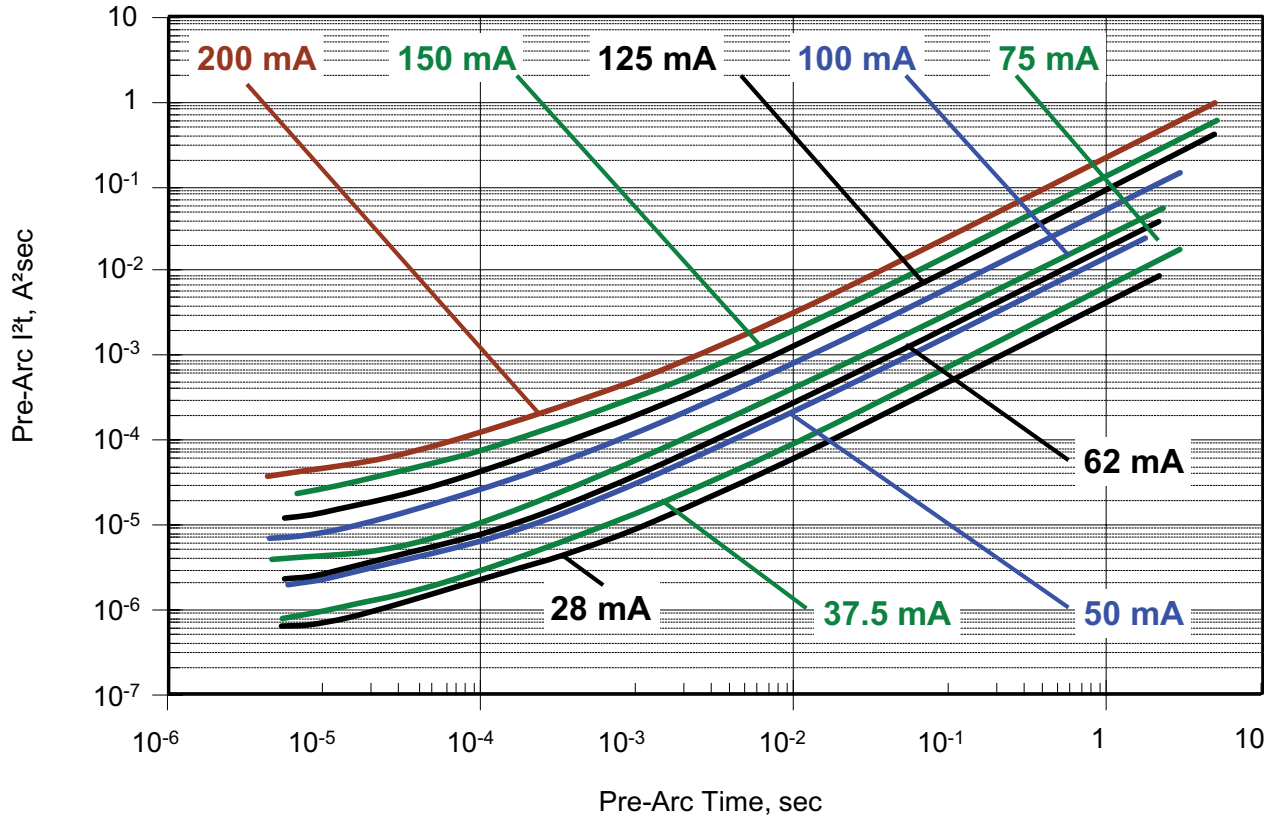
## FUSE PRE-ARC JOULE INTEGRALS VS CURRENT



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



## FUSE PRE-ARC JOULE INTEGRALS VS PRE-ARC TIME



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Authorized Distributor

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## 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](#)