



AEM's High Reliability Solid Body Fuses

Benefits

- Thick film fusible element construction with glass arc suppressing system
- Designed and screened specifically for high reliability applications where failure is not an option
- QPL approved to MIL-PRF-23419/12
- Manufactured and screened entirely in AEM's San Diego Facility
- Material and process traceability maintained for all fuse products (Group A and B screening and data standard)
- Supplied with gold plated or Sn/Pb terminal finishes

Features

- Operating temperature range of -55°C to +125°C
- Consistent minimum and maximum clearing times at overload currents regardless of vacuum conditions
- Solid body construction not subject to the de-rating factors of MIL-STD-975
- Solid body construction able to withstand greater vibration and shock exposure without damage
- Positive temperature coefficient of fusible element causing resistance to increase (prior to opening) preventing absolute short circuit to the power source

- Internal construction ensuring that arc, plasma, and vapor contained within the fuse package during clearing process
- Reliability plans for fuse products including ongoing 2000 hour life testing with over 10,000,000 life test hours completed with no failures reported

Applications

- Military and commercial satellites and spacecraft
- Protection of power supplies, batteries, and solar arrays
- Isolation of redundant and branch circuits
- Short circuit protection of squib and jettison circuitry
- Available in matched set configurations for higher current applications

Fuse Selection Considerations

- Applied DC voltage level
- Steady-state operating current level
- Ambient temperature/ PCB mount temperature
- Potential overload current levels and length of time at which fuse must open
- Surge in-rush and/or pulse currents
- Lead configuration required: radial, formed, surface mount, and flexible or solid leads

AEM's High Reliability Solid Body Fuses

AEM, Inc. thick film fuses are produced for the aerospace industry in AEM's MIL-STD-790 / AS9100 facility in San Diego, CA. AEM's fuses have been selected by most major space programs and have been in orbit for the past 35-plus years with zero reported failures. AEM, Inc. is the sole QPL listed manufacturer of FM12/P600L series solid body fuses. Detailed specification sheets of the fuse model types below can be found at www.aem-usa.com/products/hi-rel-fuses/

Fuse Model Options

FM12

- QPL listed to MIL-PRF-23419/12
- DC voltage ratings of 50V, 72V, and 125V
- Current ratings of 1/8A to 20A as single fuses
- Matched sets available for higher current requirements
- Formed, straight, and solder coated terminal options
- Overload interrupt and clearing time characteristics specified at 250%, 400%, and 600% levels



P800L

- Slow blow version
- Designed to operate with slower clearing times
- DC voltages 72V and higher (consult factory)
- Current ratings of 2A to 15A as single fuses
- Matched sets available for higher current requirements
- Straight and solder coated terminal options
- Overload interrupt and clearing time characteristics specified at 250%, 400%, and 600% levels



P600L

- Commercial version of the QPL FM12 series fuses
- DC voltage ratings of 50V, 72V, 125V, 135V, and higher (consult factory)
- Current ratings of 1/8A to 20A as single fuses
- Matched sets available for higher current requirements
- Straight, flexible, and solder coated terminal options
- Overload interrupt and clearing time characteristics specified at 250%, 400%, and 600% levels



SK406

- Formed terminal version of the P600L fuse models
- DC voltage ratings of 50V, 72V, 125V, 135V, and higher (consult factory)
- Current ratings of 1/8A to 20A as single fuses
- Matched sets available for higher current requirements
- Modified radial lead configuration allows for alternate surface mount flexibility
- Overload interrupt and clearing time characteristics specified at 250%, 400%, and 600% levels



P700L

- Surface mountable version
- Available on tape & reel for automated manufacturing processes
- Internal solder either standard (Sn96/Ag4 > P700L) or high temp (Sn10/Pb88/Ag2 > P700LH)
- DC voltage ratings of 50V, 72V, 125V, and higher (consult factory)
- Current ratings of 1/8A to 20A as single fuses
- Matched sets available for higher current requirements
- Wraparound reverse "J" tab terminal for surface mounting
- Overload interrupt and clearing time characteristics specified at 250%, 400%, and 600% levels



SM1206

- Surface mount chip version (solid body construction)
- EIA 1206 case size
- DC voltages of 24V and 32V
- Current ratings 1/4A to 7A as single fuses
- Overload interrupt and clearing time characteristics specified at 250%, 400%, and 600% levels
- Sn/Pb plated end terminations



Non-Standard

For custom fuse model current ratings, voltage ratings, terminal finish, modules, and other alternate configurations, please contact the factory.



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