



Fuse Informations

What are fuses?? They are protectors that prevent damage to electronic and electrical equipment. Fuses allow electric current to pass through them until the amount of current goes over the fuses rating. At the time, the fuse Blows and stop the flow of electric current. Fuses are rated in in amperes, the unit of measure for electric current.

Fast-ACTING / SLOW BLOW. Fast Acting fuses react quickly to current overloads. Slow Blow fuses are less sensitive to start-up surge and protect against long-term overloads

Fuse is a Safety devices components. Always replace a blown fuse with the same type replace fast acting with fast acting, slow blow with slow blow. Slow Blow fuse are less sensitive to start-up the protection against long-term overloads.

There are four basic types of fuse: Slow-Blow/ Time LAG - Dual Element slow blow fuses / Fast-acting / Very fast Acting fuses.

A major type of slow blow fuse is the dual element fuse. This fuse consists of a short circuit strip and a soldered joint, spring connection. During overloads conditions, the soldered joints gets hot enough to melt and the spring shears the junction loose. Under short circuits conditions the short circuit elements operates to open the circuit. All dual-Elements fuses are considered to be slow blow, but not all slow blow fuses are dual elements.

Slow-blow fuses are ideal for circuits with a transient surge or power inrush. There circuits include: motors, transformers, incandescent lamps and capacitive loads. This inrush can be 20 times the normal current level. When using fast-acting, single elements type fuses, it is necessary to rate fuse at 150% to 300% of the circuits full load current. With this rating rule inrush may cause nuisance openings.

Slow Blow fuses allow close rating of the fuse without nuisance opening. Typically rate the slow-blow fuses from 125% to 150% of the circuits full load process.

Fast-Acting fuses have no intentional built in slow-blow and are used in circuits without transient inrush Amp.

Very fast-acting fuses often have silver links. Because of the fuses current limiting ability, there fuses are frequently used to protect semiconductor circuits.

The current carrying capacity of a fuse: The nominal value upon which all performance characteristics of a fuse are based.

(Overcurrent) A condition which exists on a electrical circuit when the normal current is exceeded. Overcurrents take on two separate characteristics - overloads and short circuits.

(Overload) Can be classified as an overcurrent which exceeds the normal full load current of a circuit. Also characteristics of this type of overcurrent is that it does not leave the normal current carrying path of the circuit. That is it flows from the source, through the conductors, through the load, back through the conductors, to the source again.

(Voltage Rating) For general circuit protection, the voltage rating on the fuse should be equal to, or greater than the circuit voltage of the circuit in which the fuse is applied. Exceeding the voltage rating of a fuse impairs its ability to clear an overload or short circuit safely. Fuse can be used at any voltage below the fuse voltage rating; a 250V fuse can be used in 125V circuits.

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EDCON has carefully prepared the website specifications contained herein. These specifications are for reference only, any inaccuracies may be due to typographical errors or changes made after the publications on our website.

Cross Reference charts BUSSMANN / LITTLEFUSE / TELFUSE / BEL FUSE

Testing standards and equipment utilized for UL, CSA, METI, and IEC ... etc. Approvals (Specify fuse type desired.

EDCON Components are guaranteed to be free from defects in material and workmanship for a reasonable period of time after delivery. Our liability shall be limited to replacement to defective material only. Either seller or manufacturer shall be liable for any injury, loss or damage, direct or consequential, rising out of the use of or the inability to use the products for his intended use, user assumes all risk and liability whatsoever in connection therewith.

| | |
|------------------------------------------|---------------------|
| RADIAL MICRO FUSE FAST ACTING | |
| Part No.: | R23001-0A050 |
| Customer: | |

| | | | | | | | |
|-------|-------|------|-------|--------|-------|-------|------------|
| DRW: | Jason | CHKD | Jules | MATL: | Wu | DATE | 06.09.2008 |
| APPD: | Join | | | FINISH | Shieh | Sheet | 1 from 3 |



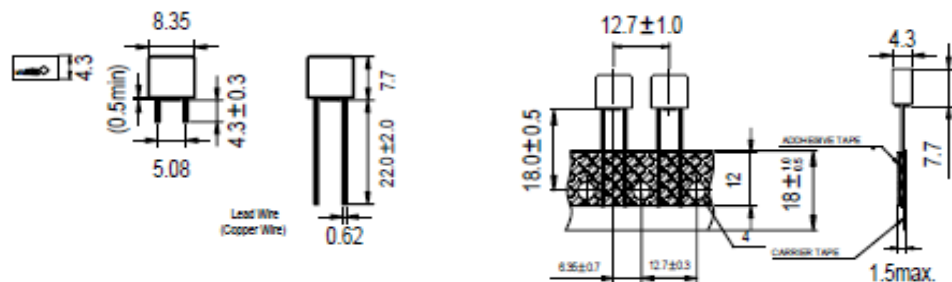
Technical Specifications

| | |
|-----------------------------------|-------------------------------------------------------------------------------|
| Operating Temperature: | -55°C to +125°C |
| Shock: | MIL-STD-202, Method 213, Test Condition 1 (Shaw toth) |
| Vibration: | MIL-STD-202, Method 201, (10-55Hz x 3 axis/no load) |
| Salt Spray: | MIL-STD-202, Method 101, Test Condition B (48hrs) |
| Insulation Resistance: | MIL-STD-202, Method 101, Test Condition A (After Opening) 10.000 Ohms minimum |
| Resistance to Solder Heat: | MIL-STD-202, Method 210, Test Condition F (10sec, at 260°C) |
| Thermal Shock: | MIL-STD-202, Method 107, Test Condition B (-65°C to +125°C) |
| Interrupting Ratings: | 35 amperes or 10 x rated current whichever is greater at 250V AC/DC |
| Materials: | |
| Base + Cap: | Black Thermoplastic, UL94V-0 |
| Terminations: | Tin plated alloy |
| Packaging: | Bulk 100 / 1000PCS per Bag Ammo Pack on Tape 1000PCS / BOX |

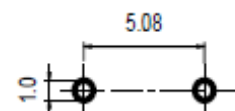
| Rated Current | 1,5 In | | 2,1 In | | 2,75 In | | 4 In | | 10 In |
|---------------|---------|---------|--------|------|---------|-------|------|------|-------|
| | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Max. |
| 50mA | 60 Min. | 30 Min. | 10sec | 3ms | 3ms | 300ms | 20ms | | |

| Serie | Ampere Rating (In) | Voltage Rating (V) | Nominal Resistance Cold Ohms | Voltage Drop (mV) MAX. | Nominal Melting I ² t A ² sec |
|--------|--------------------|--------------------|------------------------------|------------------------|-----------------------------------------------------|
| R23001 | 50mA | 250V | 4,197 | 650 | 0,000325 |

Mechanical Dimension



PCB Layout



| | |
|------------------------------------------|---------------------|
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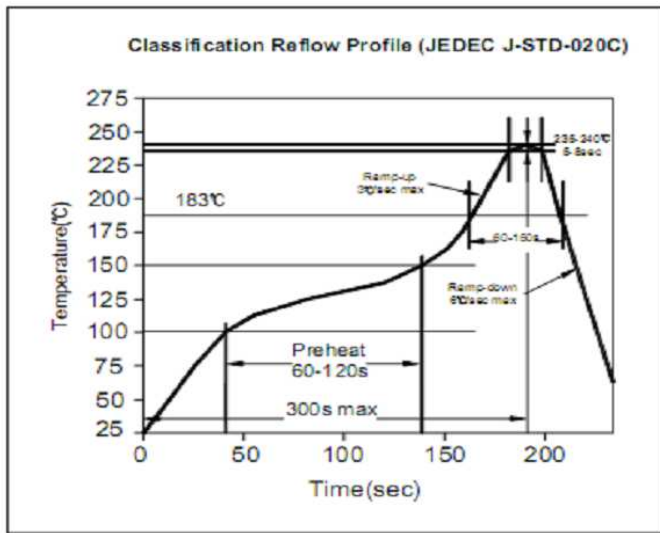


Approvals

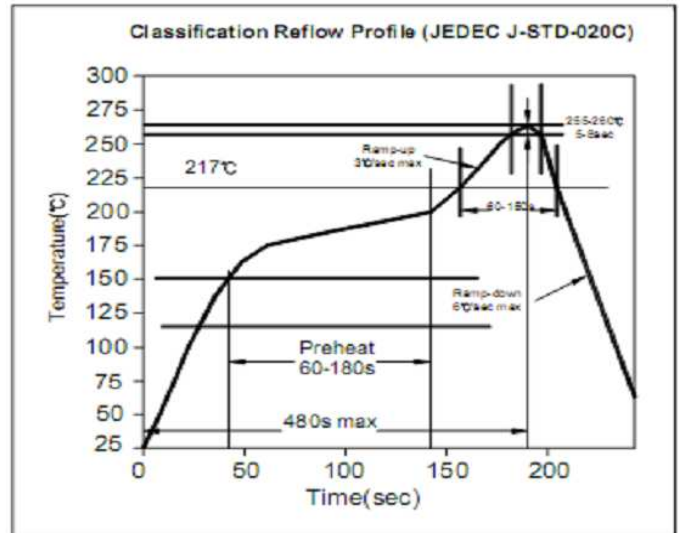
| | | | | | | | |
|--|-----|--|-----|--|--|--|-----|
| | | | | | | | |
| | YES | | YES | | | | YES |

| | | | | | | | |
|-----|--|-----|-----|--|--|--|--|
| | | PSE | CCC | | | | |
| YES | | | YES | | | | |

LEAD SOLDER CURVE



LEAD FREE SOLDER CURVE



Ordering Information

| Serie | Range | Lead Length | ROHS | Packing | | |
|--------|-------|-------------|------|---------|--|--|
| R23001 | 0A050 | N0 | R | TB1 | | |

| | | | |
|-------------------------|----------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------|
| 0A050= 0,050A | N0= Long Lead L4= Lead length ca. 4,3mm | R= ROHS Conform N= NON ROHS | TB1= Tape/Box 1000PCS BU1= Bulk-Ware 100PCS BU10= Bulk-Ware 1000PCS |
|-------------------------|----------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------|

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