



## 1.0 AMP SURFACE MOUNT PASSIVATED RECTIFIERS

### Features

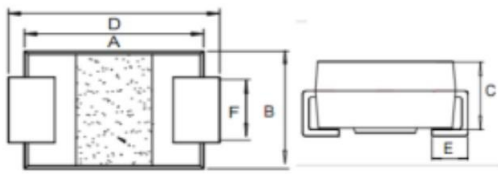
Glass passivated die construction  
 Ideal for surface mounted applications  
 Low reverse leakage  
 Plastic Case Material has UL Flammability  
 Classification Rating 94V-0

### Mechanical Data

Case Molded plastic SMA  
 Terminals Plated leads solderable per  
 Mil-STD-750 Method 2026  
 Polarity Color band or Cathode Notch  
 Mounting Position Any  
 Making Type Number

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified  
 Single phase, half wave, 60Hz, resistive or inductive load  
 For capacitive load derate current by 20%

| SMA                                                                                |        |       |      |      |      |
|------------------------------------------------------------------------------------|--------|-------|------|------|------|
|  |        |       |      |      |      |
| DIM                                                                                | INCHES |       | MM   |      | NOTE |
|                                                                                    | MIN    | MAX   | MIN  | MAX  |      |
| A                                                                                  | 0.159  | 0.183 | 4.05 | 4.65 |      |
| B                                                                                  | 0.094  | 0.11  | 2.4  | 2.8  |      |
| C                                                                                  | 0.075  | 0.091 | 1.9  | 2.3  |      |
| D                                                                                  | 0.184  | 0.207 | 4.67 | 5.27 |      |
| E                                                                                  | 0.039  | 0.055 | 1    | 1.4  |      |
| F                                                                                  | 0.047  | 0.063 | 1.2  | 1.6  |      |

| Type Number                                                                                            | SYMBOL             | M1          | M2  | M3  | M4  | M5  | M6  | M7   | Unit             |
|--------------------------------------------------------------------------------------------------------|--------------------|-------------|-----|-----|-----|-----|-----|------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                 | V <sub>RRM</sub>   | 50          | 100 | 200 | 400 | 600 | 800 | 1000 | V                |
| Maximum RMS Voltage                                                                                    | V <sub>RMS</sub>   | 35          | 70  | 140 | 280 | 420 | 560 | 700  | V                |
| Maximum DC Blocking Voltage                                                                            | V <sub>DC</sub>    | 50          | 100 | 200 | 400 | 600 | 800 | 1000 | V                |
| Average Rectified Output Current<br>@T <sub>L</sub> =100℃                                              | I <sub>F(AV)</sub> | 1.0         |     |     |     |     |     |      | A                |
| Peak Forward Surge Current 8.3ms Single half<br>sine-wave superimposed on rated load (JEDEC<br>Method) | I <sub>FSM</sub>   | 30          |     |     |     |     |     |      | A                |
| Forward Voltage @IF=1.0A                                                                               | V <sub>FM</sub>    | 1.1         |     |     |     |     |     |      | V                |
| Peak Reverse Current @T <sub>A</sub> =25℃                                                              | I <sub>R</sub>     | 5.0         |     |     |     |     |     |      | uA               |
| At Rated DC Blocking Voltage @T <sub>A</sub> =125℃                                                     |                    | 100         |     |     |     |     |     |      |                  |
| I <sup>2</sup> t Rating for fusing (t <8.3ms)                                                          | I <sup>2</sup> t   | 3.7         |     |     |     |     |     |      | A <sup>2</sup> s |
| Typical Junction Capacitance (Note 1)                                                                  | C <sub>J</sub>     | 12          |     |     |     |     |     |      | pF               |
| Typical Thermal Resistance Junction to<br>Ambient(Note 2)                                              | R <sub>θJA</sub>   | 60          |     |     |     |     |     |      | ℃/W              |
| Operating Temperature Range                                                                            | T <sub>J</sub>     | -55 to+150  |     |     |     |     |     |      | ℃                |
| Storage Temperature Range                                                                              | T <sub>STG</sub>   | -55 to +150 |     |     |     |     |     |      | ℃                |

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

2. Thermal Resistance from Junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas



FIG.1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

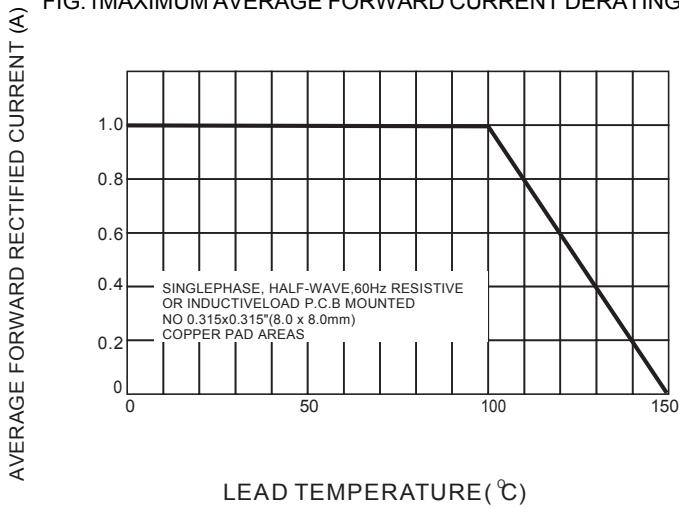


FIG.2 TYPICAL FORWARD CHARACTERISTICS

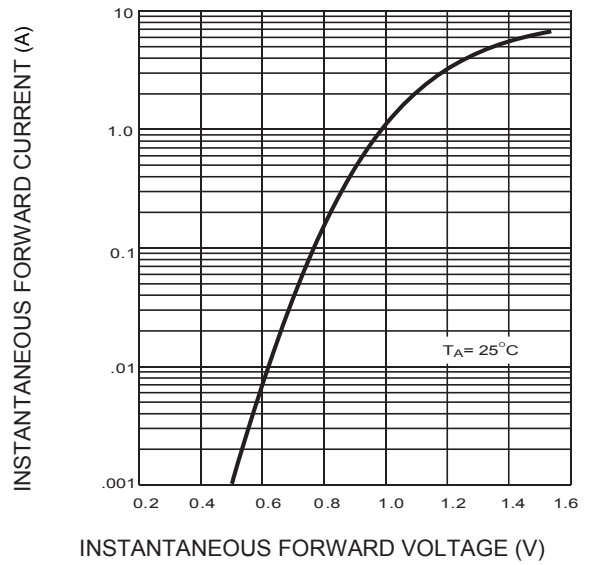


FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

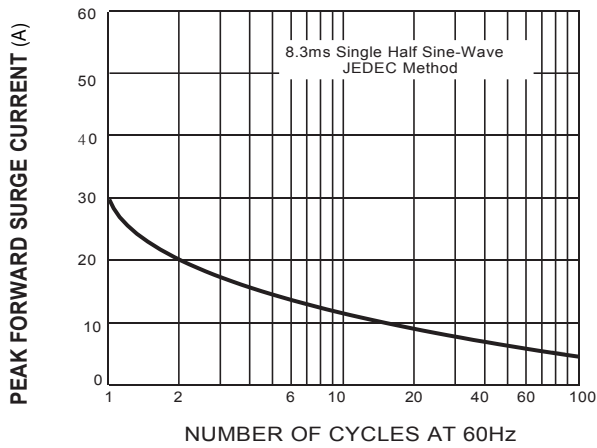
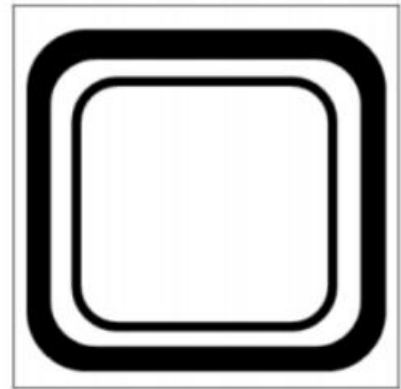
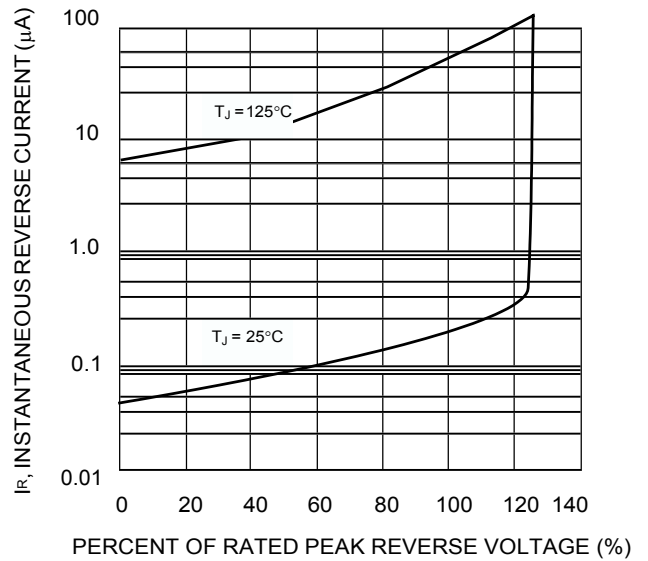


Fig. 4 T typical Reverse Characteristics (per element)



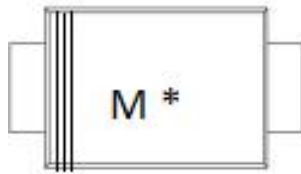
CHIP DIMENSION SQUARE  $50 \pm 2\text{MIL}$



## MARKING INFORMATION



= Polar line

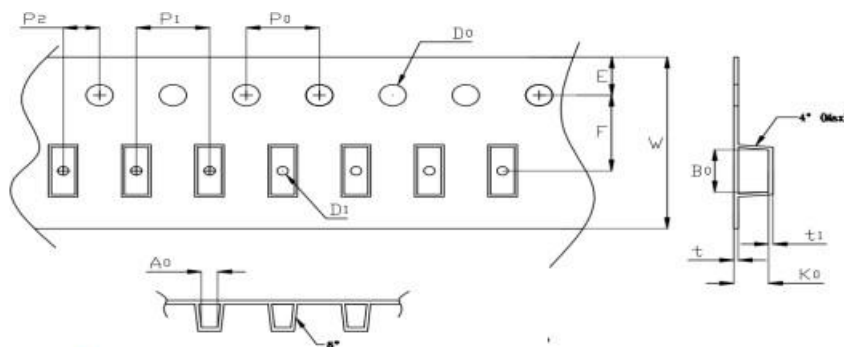


M\*

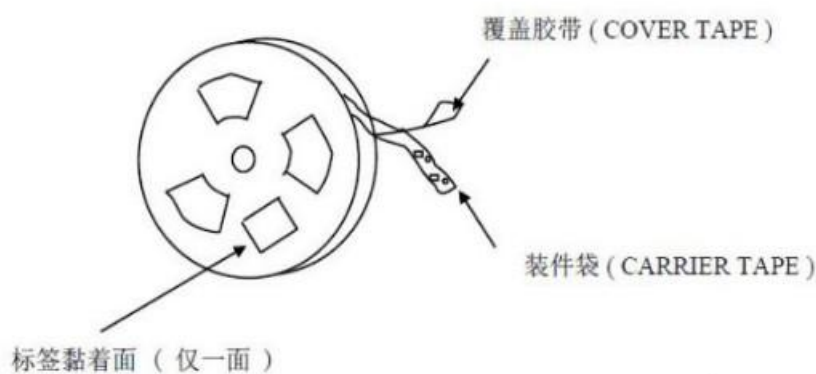
= Marking Code

## PACKING REQUIREMENTS

- PS black anti-static carrier tape packing



| Specifications | Carrier tape type | A0        | B0        | K0        | P0        | W         | t         | Explain |
|----------------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|---------|
| SMA            | Anti-static       | 2.79±0.10 | 5.33±0.10 | 2.36±0.10 | 4.00±0.10 | 12.0±0.10 | 0.23±0.05 |         |



| DEVICE TYPE | Tape width | 11" Reel        |            |                 | 11" Reel        |            |                 |
|-------------|------------|-----------------|------------|-----------------|-----------------|------------|-----------------|
|             |            | Q'TY/REEL (pcs) | BOX/CARTON | Q'TY/REEL (pcs) | Q'TY/REEL (pcs) | BOX/CARTON | Q'TY/REEL (pcs) |
| SMA         | 12mm       | 5000            | 20         | 100000          | 5000            | 18         | 90000           |



## 注意事项

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4. 本说明书如有版本变更不另外告知

## NOTE

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