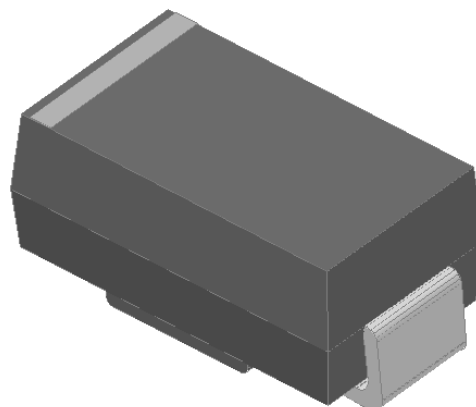




**Rectifier diode**  
**Reverse Voltage1000v**  
**Forward current-5A**

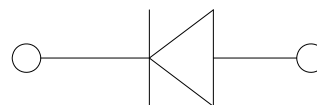
#### Features

Glass passivated chip  
High surge current capability  
Ideal for surface mounted applications  
Low power loss, high efficiency  
Plastic Case Material has UL Flammability



#### Mechanical Data

Package: SMB  
Terminals: Tin Plated leads, solderable per  
Mil-STD-750 Method 2026  
Polarity: As marked  
Molding compound meets UL 94 V-0 flammability rating,  
ROHS-compliant



#### Maximum Ratings (Ta=25°C Unless otherwise specified)

| Type Number                                                                                                 | SYMBOL      | S5M       | Unit             |
|-------------------------------------------------------------------------------------------------------------|-------------|-----------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                      | $V_{RRM}$   | 1000      | V                |
| Maximum RMS Voltage                                                                                         | $V_{RMS}$   | 700       | V                |
| Maximum DC Blocking Voltage                                                                                 | $V_{DC}$    | 1000      | V                |
| Maximum Average Forward Rectified Current at $T_L = 100^\circ\text{C}$                                      | $I_{O(AV)}$ | 5.0       | A                |
| Peak Forward Surge Current<br>8.3ms Single half-sine-wave superimposed on rated load(JEDEC Method) on rated | IFSM        | 150.0     | A                |
| Forward Surge Current (Non-repetitive)<br>@1ms, square wave, 1 cycle, $T_J=25^\circ\text{C}$                |             | 300.0     | A                |
| Current squared time<br>@1ms≤t≤8.3ms $T_J=25^\circ\text{C}$ , Rating of per diode                           | $I^2t$      | 93.4      | A <sup>2</sup> S |
| Maximum Forward Voltage at 5.0A DC                                                                          | $V_{FM}$    | 1.1       | V                |
| Maximum Reverse Current $T_A = 25^\circ\text{C}$                                                            | IR          | 5.0       | uA               |
| at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$                                                      |             | 100.0     |                  |
| Typical Thermal Resistance Between junction and ambient                                                     | $R_{QJA}$   | 75.0      | °C/W             |
| Operating Junction Temperature Range                                                                        | $T_J$       | —55to+150 | °C               |
| Storage Temperature Range                                                                                   | $T_{STG}$   | —55to+150 | °C               |



FIG. 1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

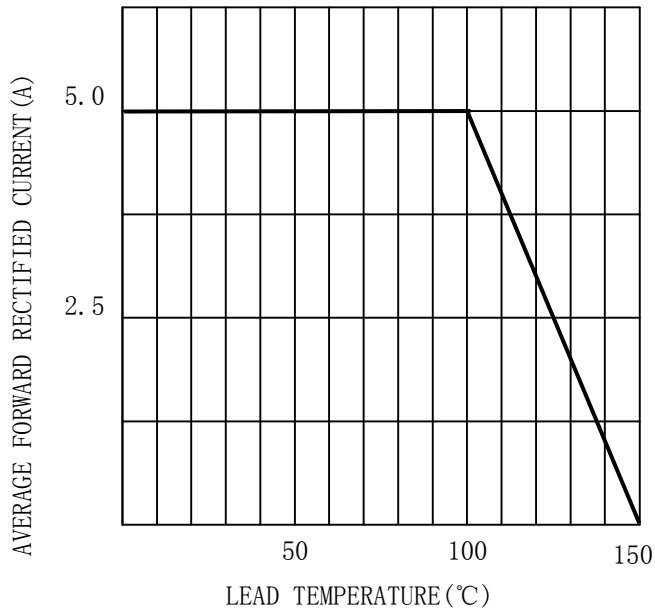


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

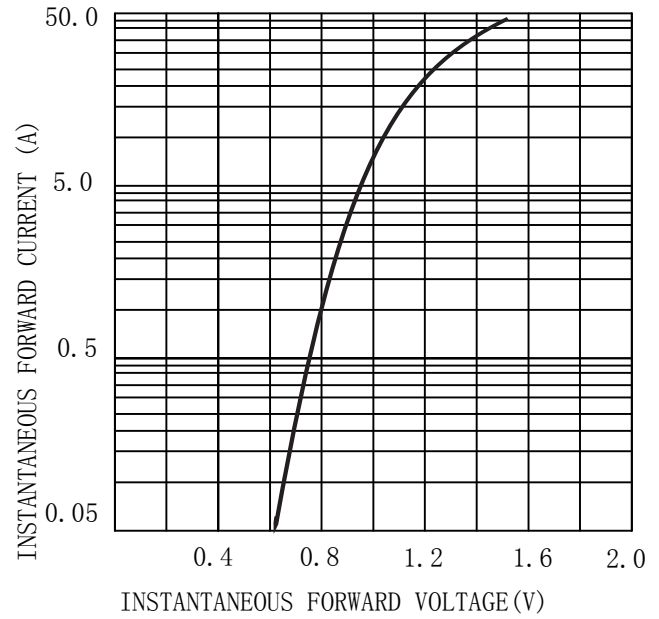


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

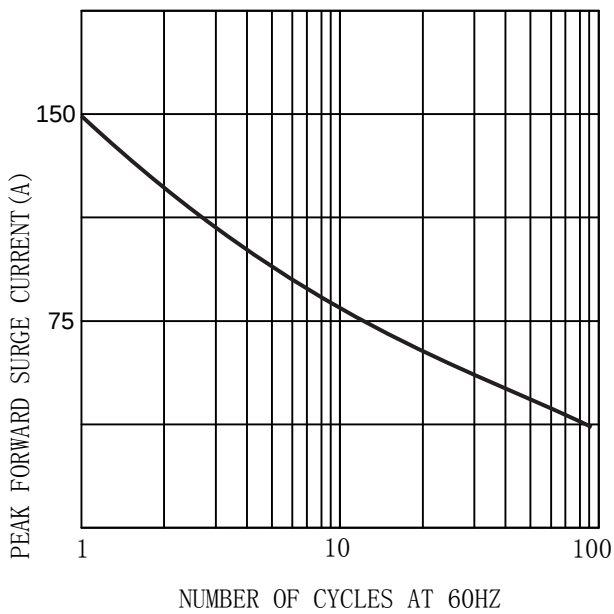
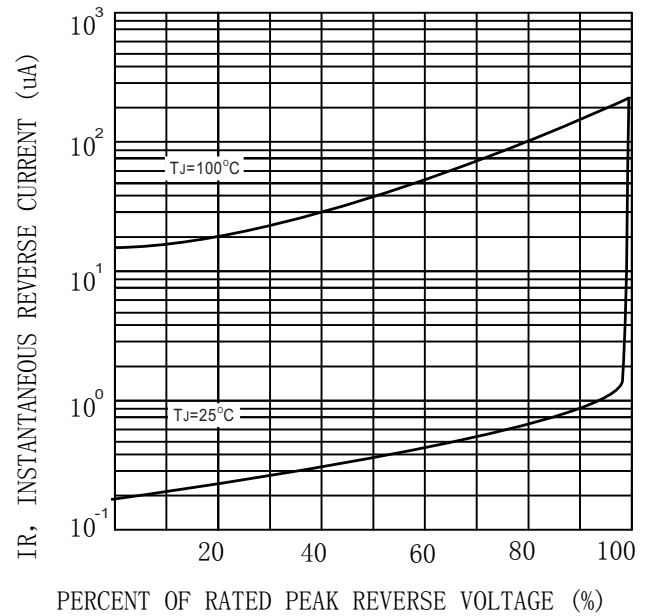


FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)





## MARKING INFORMATION



 = Logo

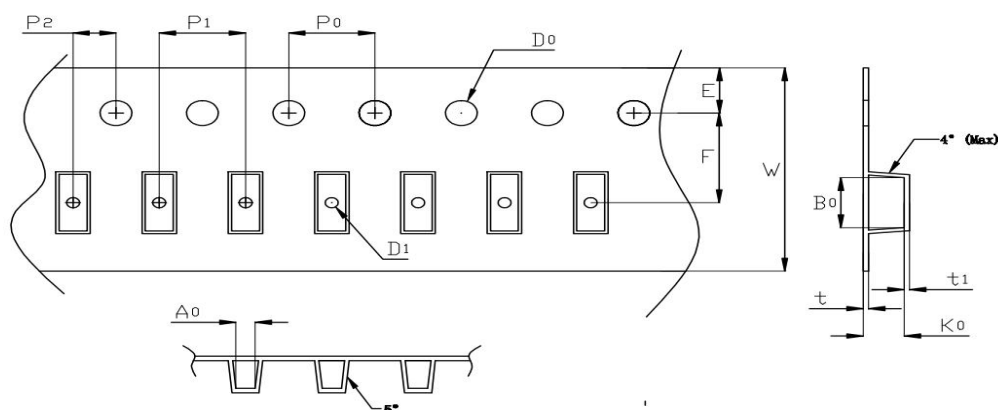
\*\*\*\* = Date Code Marking

S5M = Marking Code

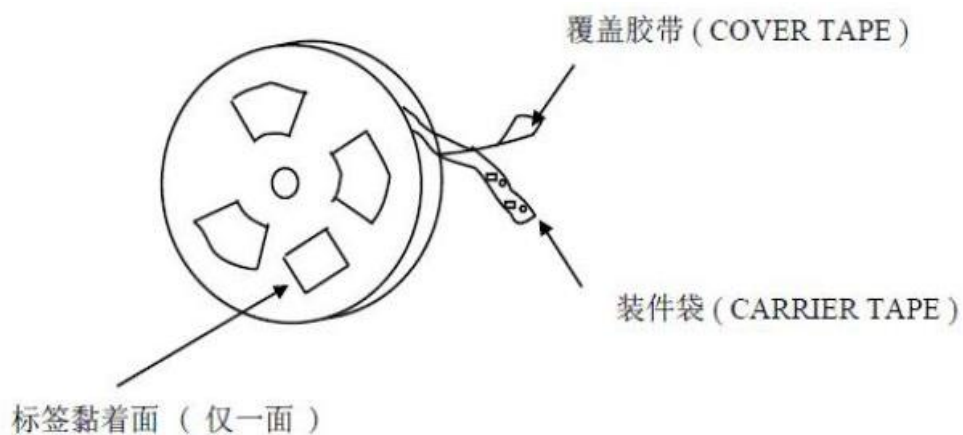
Print according to customer request

## PACKING REQUIRMENTS

### • Carrier tape packing



| Specifications | Carrier tape type | Ao             | Bo             | Ko              | Po              | W               | t               | Explain |
|----------------|-------------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|---------|
| SMB            | Anti-static       | $3.8 \pm 0.10$ | $5.4 \pm 0.10$ | $2.45 \pm 0.10$ | $4.00 \pm 0.10$ | $12.0 \pm 0.10$ | $0.23 \pm 0.05$ |         |

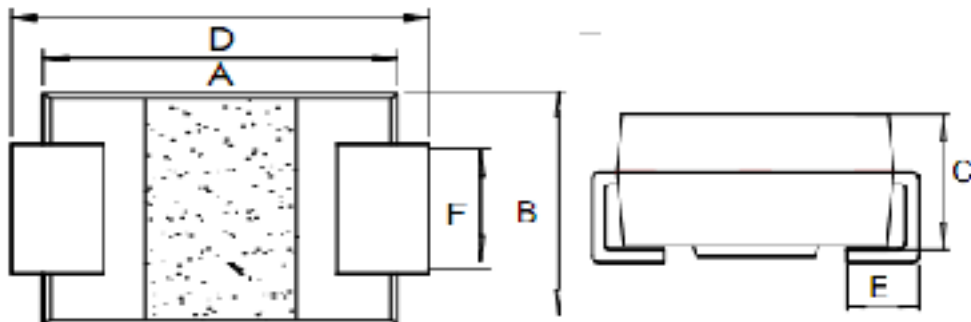


| DEVICE TYPE | Tape width | 13"Reel         |              |                 |
|-------------|------------|-----------------|--------------|-----------------|
|             |            | Q'TY/REEL (pcs) | BOX/CAR TOON | Q'TY/REEL (pcs) |
| SMB         | 12mm       | 3000            | 20           | 60000           |



## Outline Dimensions

### SMB



| SMB |         |      |     |     |
|-----|---------|------|-----|-----|
| DIM | INC HES |      | MM  |     |
|     | MIN     | MAX  | MIN | MAX |
| A   | 0.16    | 0.19 | 4   | 4.8 |
| B   | 0.13    | 0.15 | 3.3 | 3.9 |
| C   | 0.08    | 0.10 | 2   | 2.5 |
| D   | 0.18    | 0.22 | 4.5 | 5.5 |
| E   | 0.03    | 0.06 | 0.7 | 1.5 |
| F   | 0.06    | 0.10 | 1.5 | 2.5 |



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