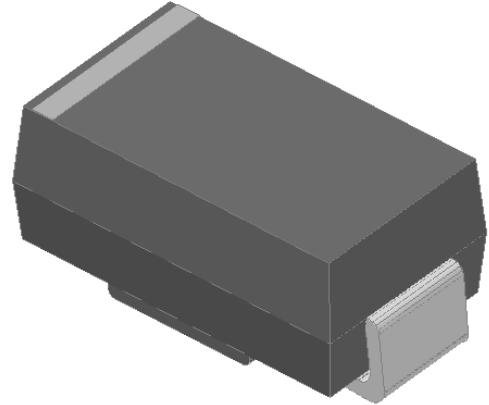




Rectifier diode
Reverse Voltage1000v
Forward current-1A

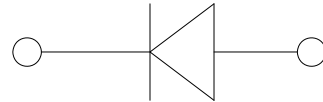
Features

- 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: SMA
- 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 | S1M | 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 | $I_{O(AV)}$ | 1.0 | A |
| Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load(JEDEC Method) on rated | IFSM | 30.0 | A |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C | | 60.0 | A |
| Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode | I^2t | 3.7 | A ² S |
| Maximum Forward Voltage at 1.0A DC | V_{FM} | 1.1 | V |
| Maximum Reverse Current TA = 25°C | IR | 5.0 | uA |
| at Rated DC Blocking Voltage TA = 125°C | | 100.0 | |
| Typical Thermal Resistance Between junction and | 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

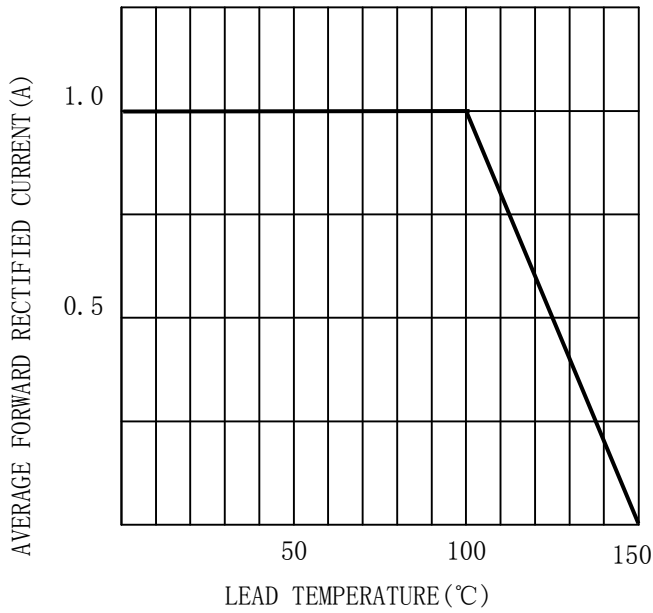


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

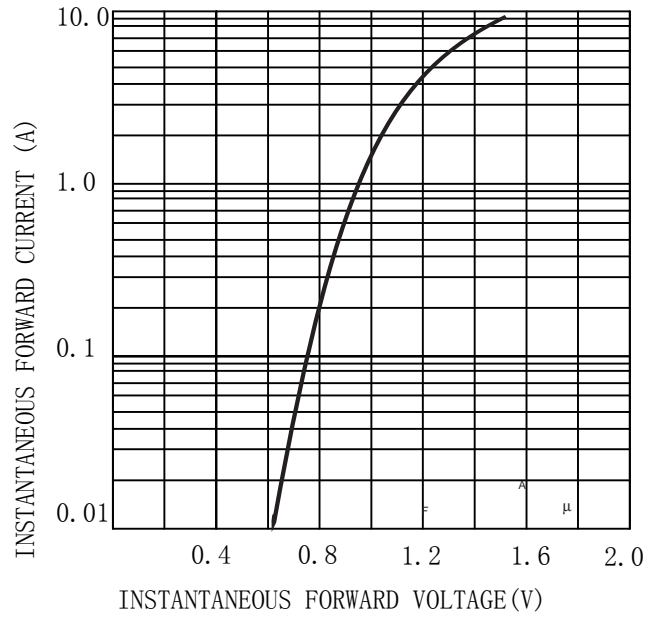


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

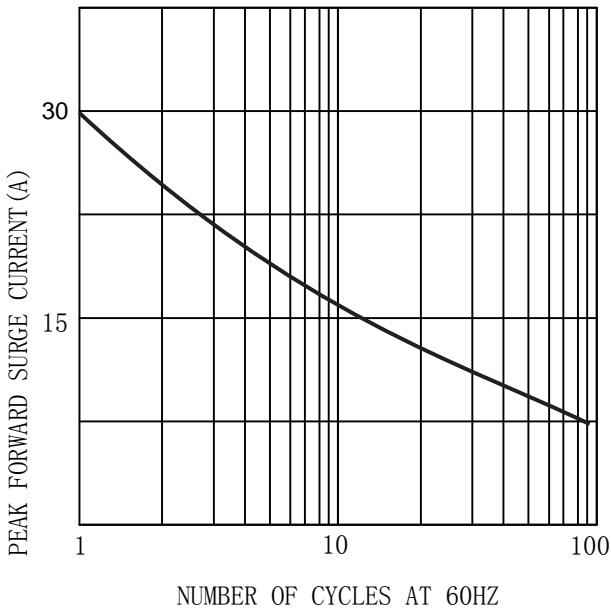
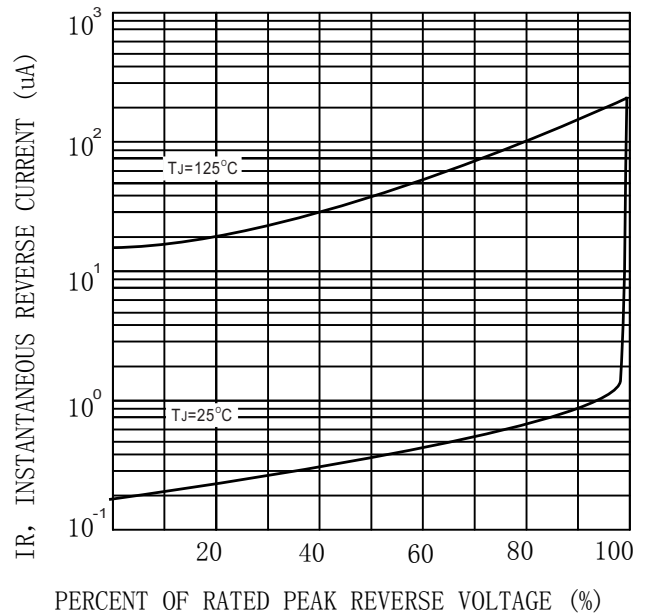


FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)





MARKING INFORMATION



= Logo

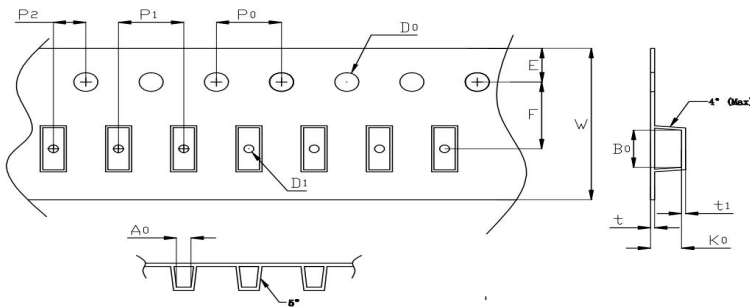
**** = Date Code Marking

S1M = Marking Code

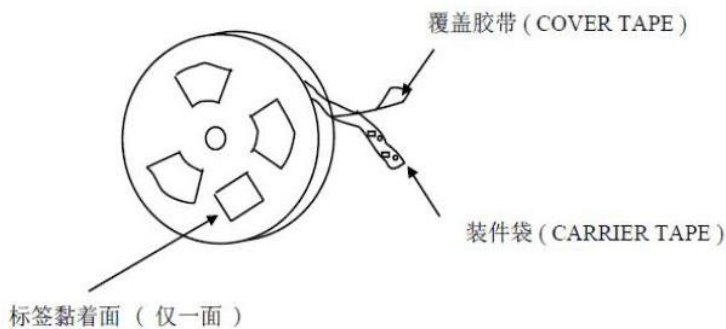
Print according to customer request

PACKING REQUIRMENTS

- Carrier tape packing



| Specifications | Carrier tape type | Ao | Bo | Ko | Po | W | t | Explain |
|----------------|-------------------|------------|------------|------------|------------|------------|------------|---------|
| SMA | Anti-static | 2.65± 0.10 | 5.20± 0.10 | 2.30± 0.10 | 4.00± 0.10 | 12.0± 0.10 | 0.20± 0.05 | |

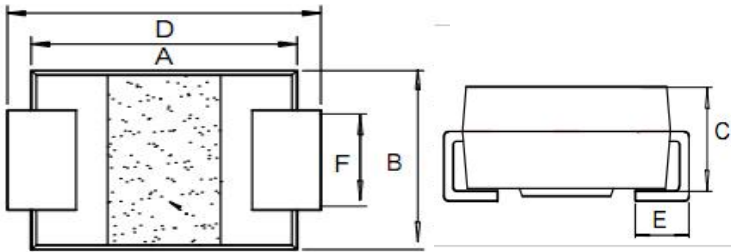


| DEVICE TYPE | Tape width | 11"Reel | | | 11"Reel | | |
|-------------|------------|-----------------|--------------|-----------------|-----------------|--------------|-----------------|
| | | Q'TY/REEL (pcs) | BOX/CAR TOON | Q'TY/REEL (pcs) | Q'TY/REEL (pcs) | BOX/CAR TOON | Q'TY/REEL (pcs) |
| SMA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



Outline Dimensions

SMA



| SMA | | | | |
|-----|--------|------|------|------|
| DIM | INCHES | | MM | |
| | MIN | MAX | MIN | MAX |
| A | 0.16 | 0.18 | 4.05 | 4.65 |
| B | 0.09 | 0.11 | 2.4 | 2.8 |
| C | 0.07 | 0.09 | 1.8 | 2.3 |
| D | 0.18 | 0.21 | 4.67 | 5.27 |
| E | 0.04 | 0.06 | 1 | 1.4 |
| F | 0.05 | 0.06 | 1.2 | 1.6 |



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