

## US1M SURFACE MOUNT ULTRA FAST RECTIFIER

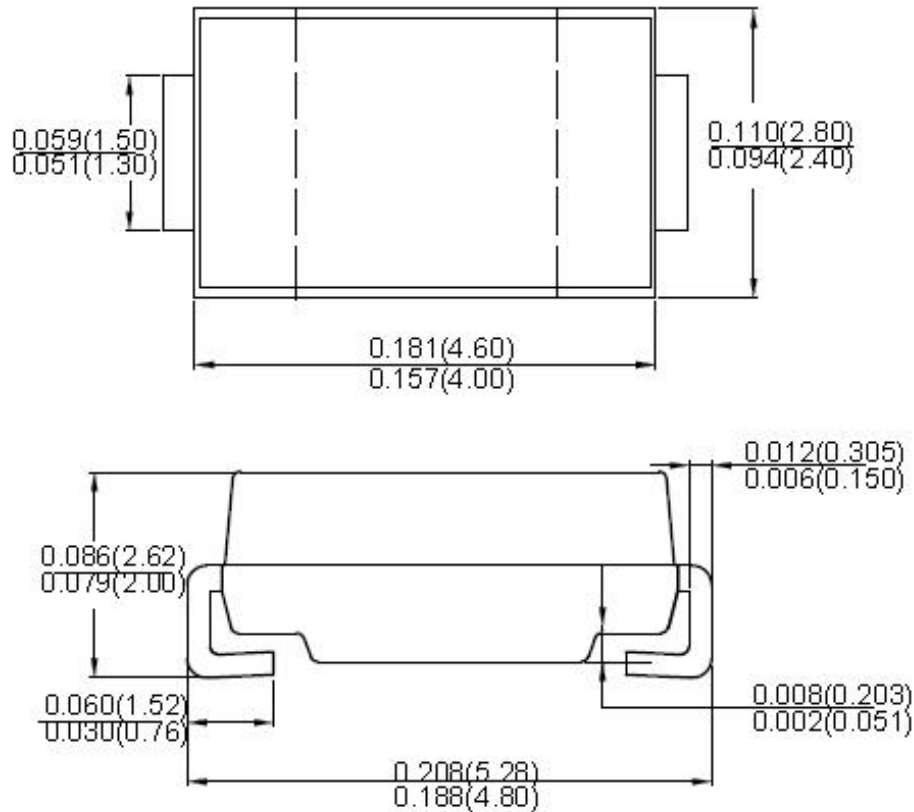
### Features:

- Classification Rating 94V- 0
- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Guard Ring Die Construction
- 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 guaranteed
- Polarity: Color band dentes cathode end
- Mounting Position: Any
- Making: Type Number

### Mechanical Dimensions: In mm / Inches



**SMA**

**Marking Diagram:**

Where XXXXX is YYWWL



- US = Device Type
- 1 = Forward Current (1A)
- M = Reverse Voltage (1000V)
- YY = Year
- WW = Week
- L = Lot Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**Ordering Information:**

Device	Package	Shipping
US1M	SMA (Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

**Maximum Ratings and Electrical Characteristics** @ $T_A=25^{\circ}\text{C}$  unless otherwise specified

Characteristic	Symbol	US1M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	1000	V
Maximum Average Rectified Output Current @ $T_A = 75^{\circ}\text{C}$	$I_o$	1.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30	A
Maximum Forward Voltage @ $I_F = 1.0\text{A}$	$V_F$	1.7	V
Peak Reverse Current At Rated DC Blocking Voltage @ $T_A = 25^{\circ}\text{C}$ @ $T_A = 100^{\circ}\text{C}$	$I_R$	5.0 100	$\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	75	ns
Typical Junction Capacitance (Note 2)	$C_J$	17	pF
Typical Thermal Resistance Junction to Ambient (Note 3)	$R_{\theta JA}$	30	$^{\circ}\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	$^{\circ}\text{C}$
Case Style	SMA		

Note: 1.Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $IRR=0.25\text{A}$ .

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

3.  $8.0\text{mm}^2$  (.13mm Thick) Land Areas.

**Technical Data**  
**Data Sheet N1372, Rev. A**

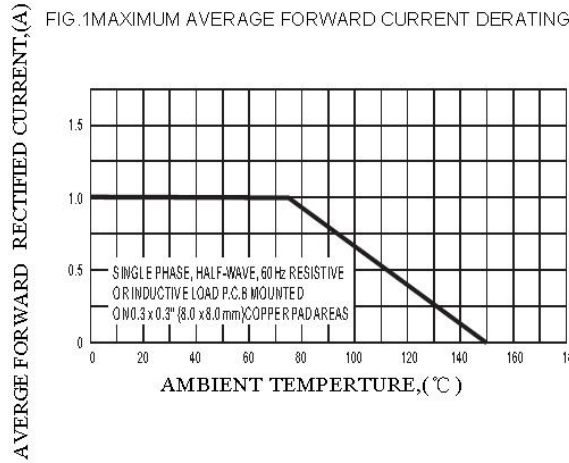


FIG.2 TYPICAL FORWARD CHARACTERISTICS

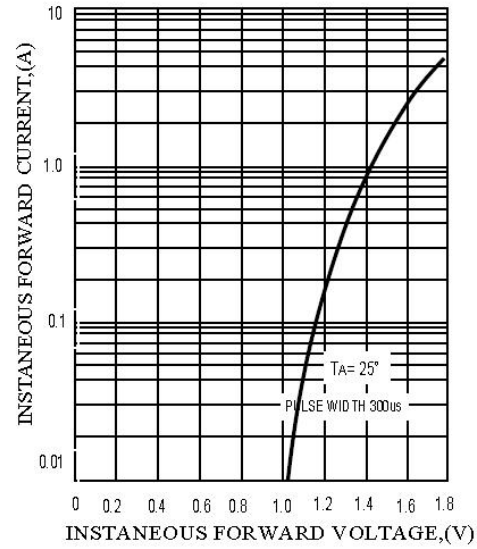


FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

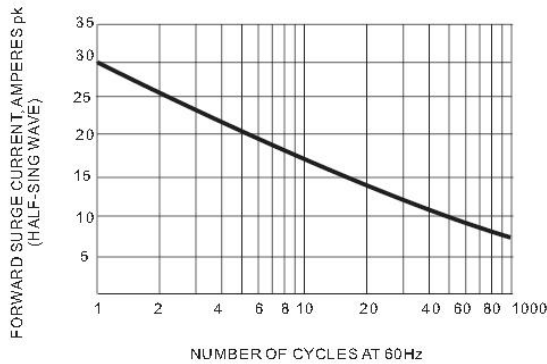


FIG.4 TYPICAL JUNCTION CAPACITANCE

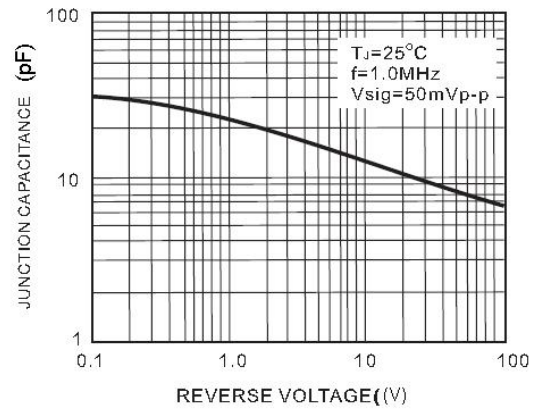
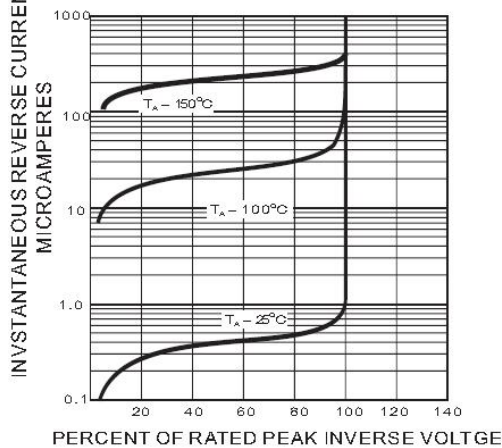


FIG.5 TYPICAL REVERSE CHARACTERISTICS





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