

US1AW SERIES

SURFACE MOUNT ULTRAFAST RECTIFIER

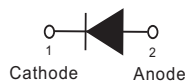
VOLTAGE 50 to 1000 Volts **CURRENT** 1.0 Ampere

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Lead free in comply with EU RoHS 2002/95/EC directives

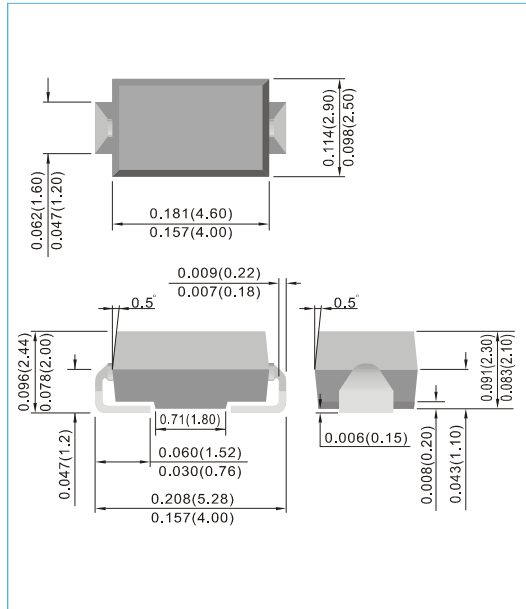
MECHANICAL DATA

- Case: SMA(W) molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.002 ounce, 0.064 gram



SMA(W)

Unit : inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	US1AW	US1BW	US1DW	US1GW	US1JW	US1KW	US1MW	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	800	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current at T _L =125°C	I _{F(AV)}	1.0							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30							A
Maximum Forward Voltage at 1.0A	V _F	1.0			1.3	1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	10							μA
Typical Junction Capacitance (Notes 2)	C _J	17							pF
Typical Thermal Resistance (Notes 3)	R _{θJL}	30							°C / W
Maximum Reverse Recovery Time (Notes 1)	t _{rr}	50				100			ns
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150							°C

NOTES:

1. Reverse recovery test conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$.
2. Measured at 1 MHz and applied $V_r = 4.0$ volts.
3. Mounted on infinite heatsink.

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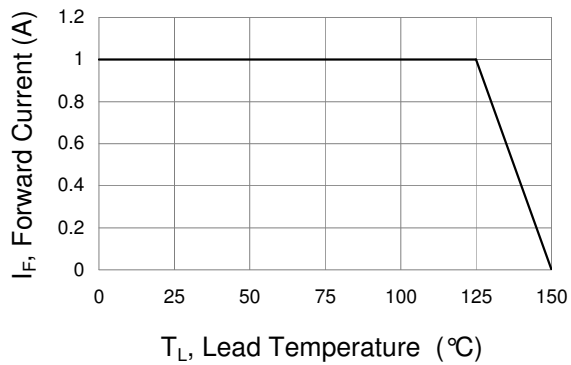


Fig.1 - Forward Current Derating Curve

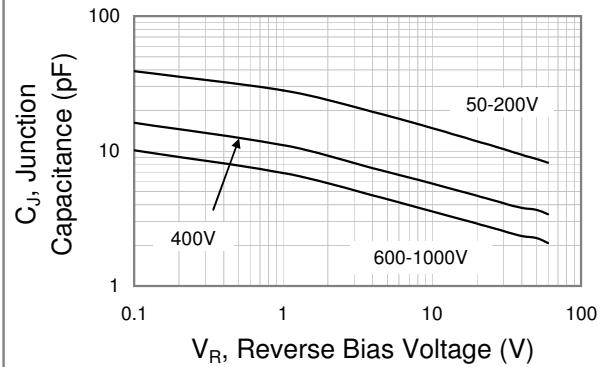


Fig.2 - Typical Junction Capacitance

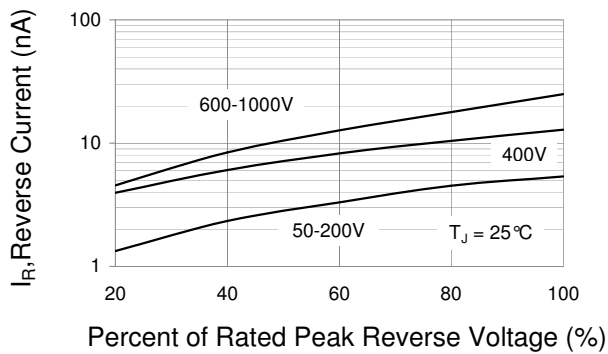


Fig.3 - Typical Reverse Characteristics

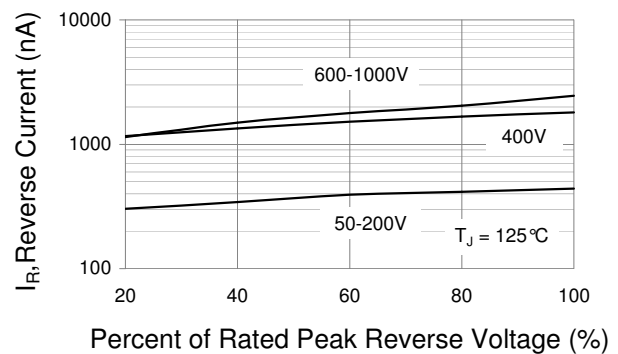


Fig.4 - Typical Reverse Characteristics

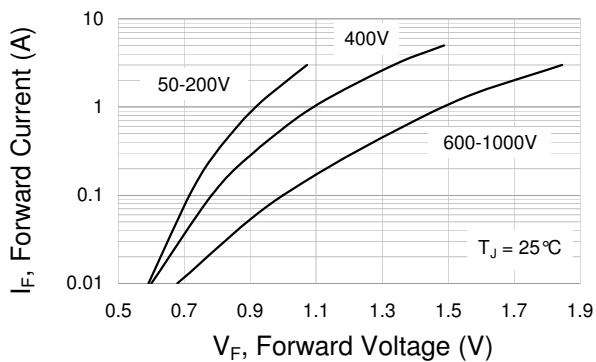


Fig.5 - Typical Forward Characteristics

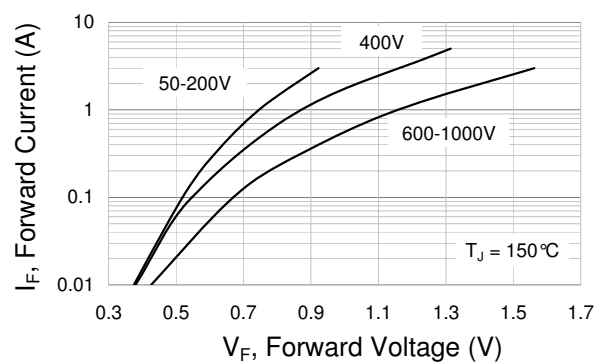
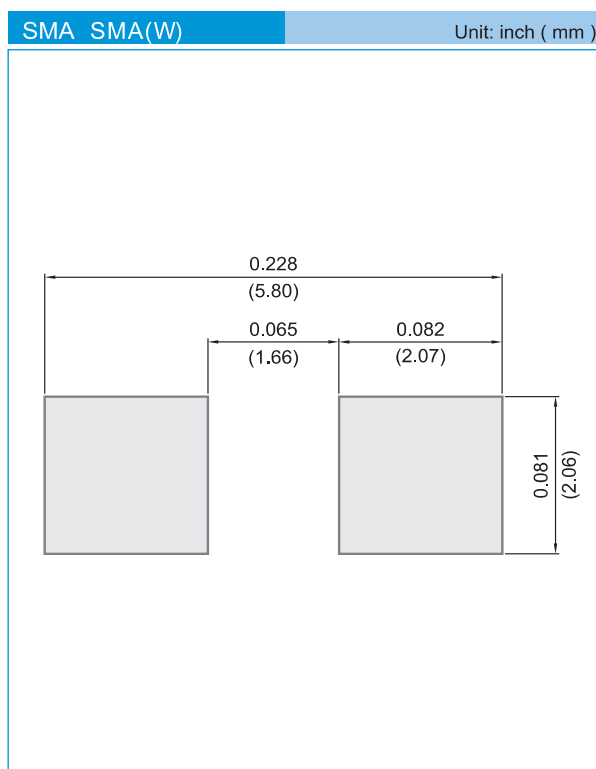


Fig.6 - Typical Forward Characteristics

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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 7.5K per 13" plastic Reel
 - T/R - 1.8Kper 7" plastic Reel

LEGAL STATEMENT

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