



US1AW~US1MW

SURFACE MOUNT ULTRAFAST RECTIFIER

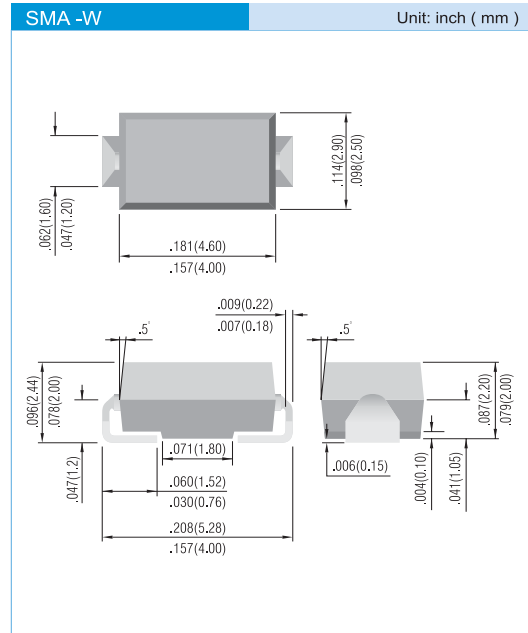
VOLTAGE 50 to 1000 Volts **CURRENT** 1.0 Amperes

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
- In compliance 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: Indicated by cathode band
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.002 ounce, 0.064 gram



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%.

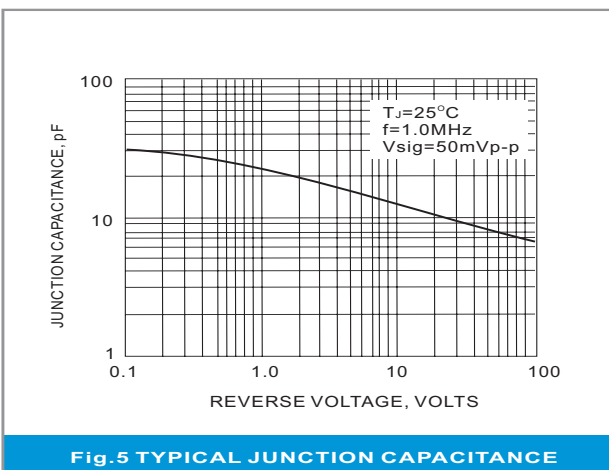
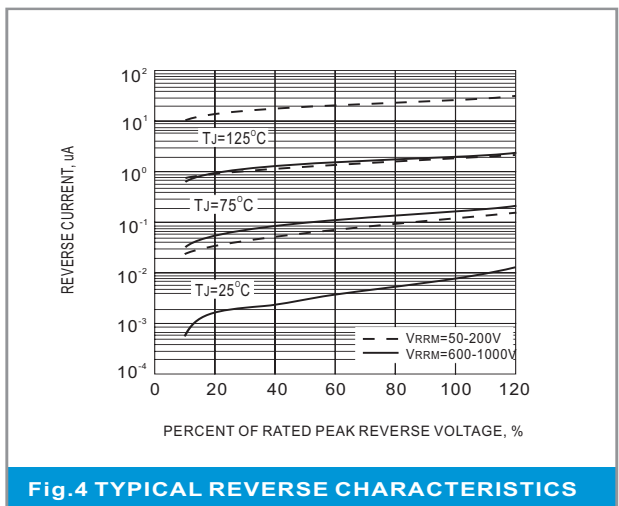
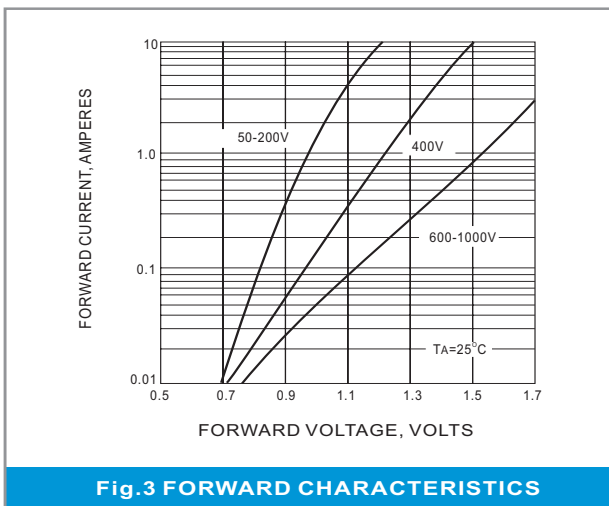
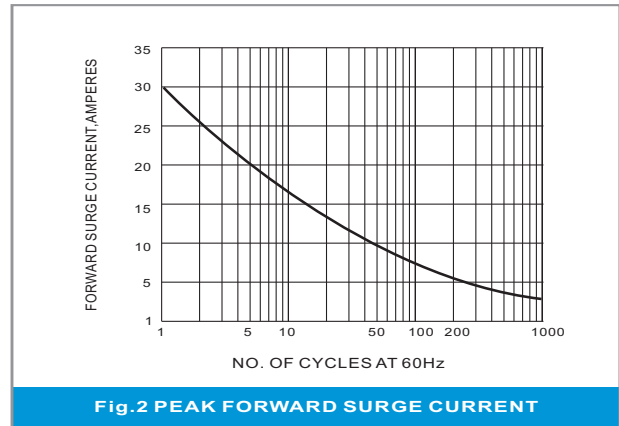
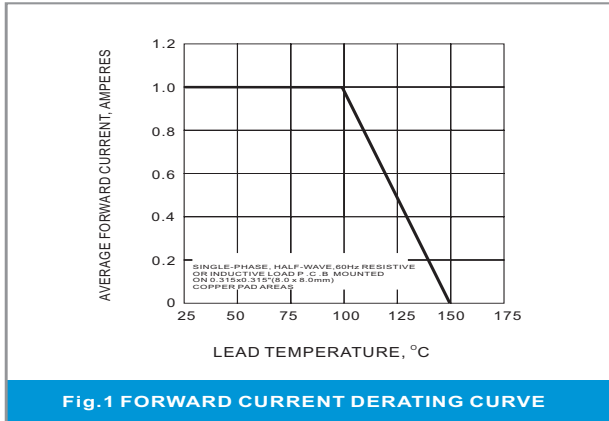
PARAMETER	SYMBOL	US1AW	US1BW	US1DW	US1GW	US1JW	US1KW	US1MW	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	800	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current .375" (9.5mm) lead length at $T_c=100^\circ\text{C}$	$I_{F(AV)}$	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		1.4		1.7		V	
Maximum DC Reverse Current at $T_j=25^\circ\text{C}$ Rated DC Blocking Voltage $T_j=125^\circ\text{C}$	I_R				10.0		100		uA
Typical Junction capacitance (Note 2)	C_j				17		pF		
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$				30		$^\circ\text{C} / \text{W}$		
Maximum Reverse Recovery Time (Note 1)	t_{rr}	50			100		ns		
Operating Junction and Storage Temperature Range	T_j, T_{STG}	-50 TO +150							$^\circ\text{C}$

NOTES: 1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
 2. Measured at 1 MHz and applied $V_r = 4.0$ volts.
 3. 8.0 mm² (.013mm thick) land areas.



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RATING AND CHARACTERISTIC CURVES



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