

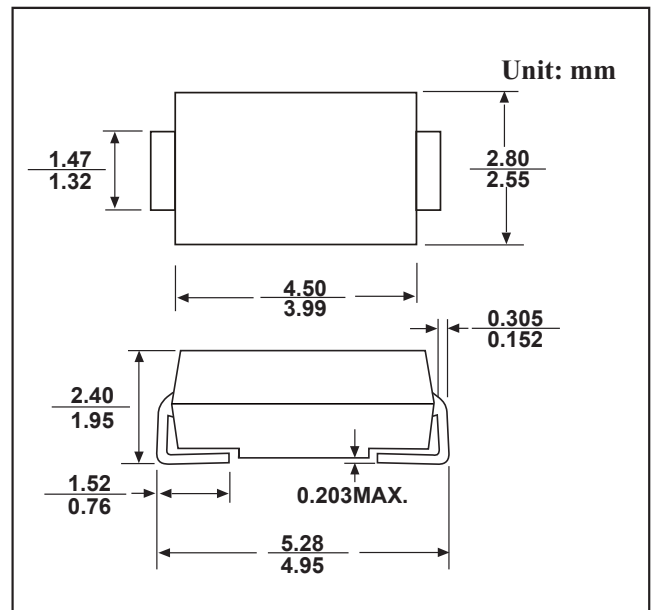
SMA PLASTIC SILICON RECTIFIERS

FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- High efficiency
- Lead free in comply with EU RoHS 2015/863 directives

MECHANICAL DATA

- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.055g / 0.002oz



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbols	US1A	US1B	US1D	US1G	US1J	US1K	US1M	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_c = 125^\circ\text{C}$	IF(AV)	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	IFSM	30							A
Maximum Instantaneous Forward Voltage at 1 A	VF	1.0		1.3		1.65		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	IR	5 100							μA
Maximum Reverse Recovery Time (1)	trr	50				75			ns
Typical Thermal Resistance (2)	$R_{\theta JA}$	75							$^\circ\text{C/W}$
Typical Junction Capacitance (3)	Cj	15							pF
Operating and Storage Temperature Range	Tj, Tstg	-55 ~ +150							$^\circ\text{C}$

(1) Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

(3) Measured at 1 MHz and applied reverse voltage of 4 V D.C

RATINGS AND CHARACTERISTIC CURVES

FIG.1: FORWARD CURRENT DERATING CURVE

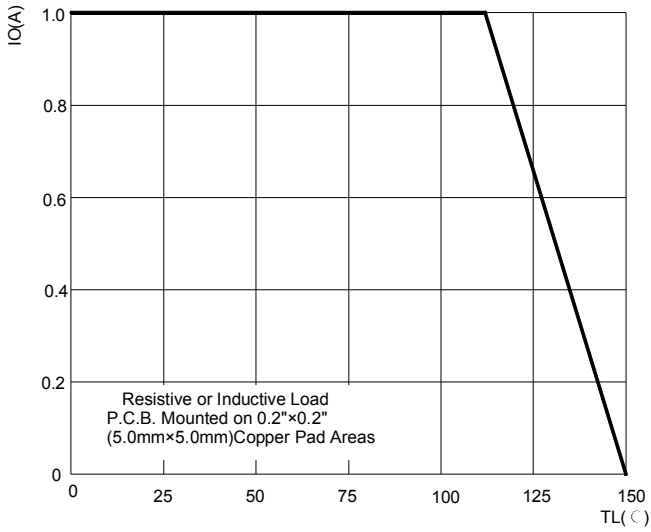


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

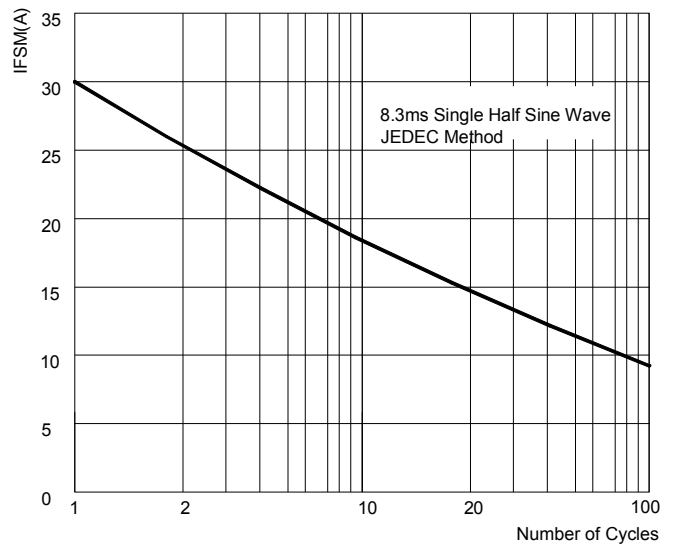


FIG.3: TYPICAL FORWARD CHARACTERISTICS

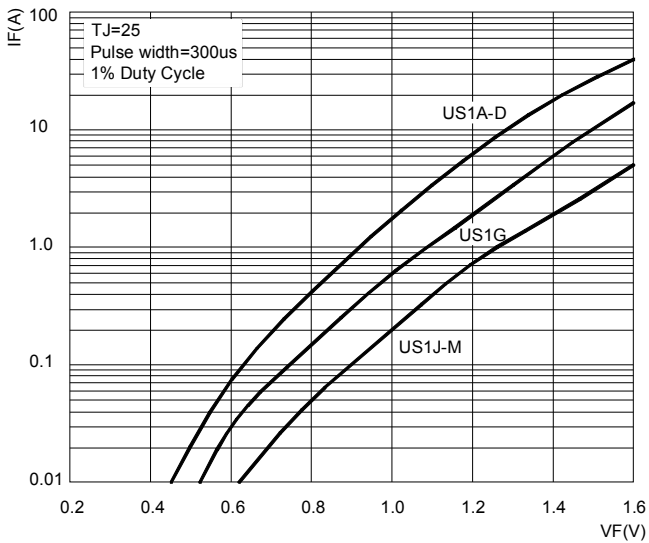


FIG.4: TYPICAL REVERSE CHARACTERISTICS

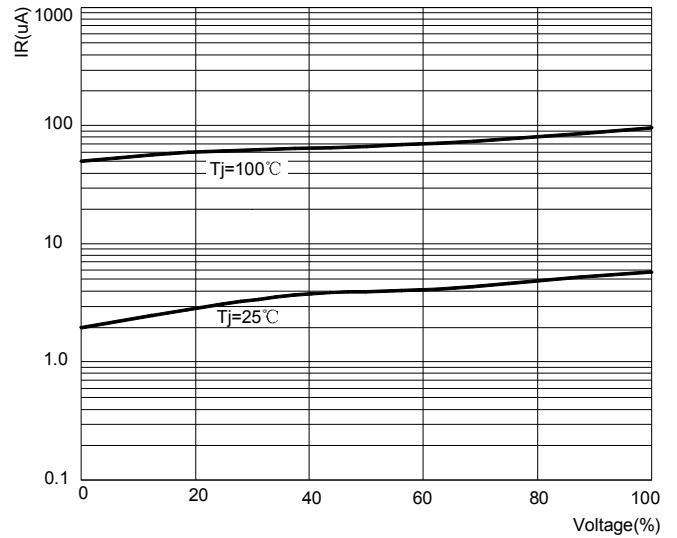


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

