

**SURFACE MOUNT RECTIFIERS**

**REVERSE VOLTAGE: 50 - 1000 V**  
**FORWARD CURRENT: 1.0 A**

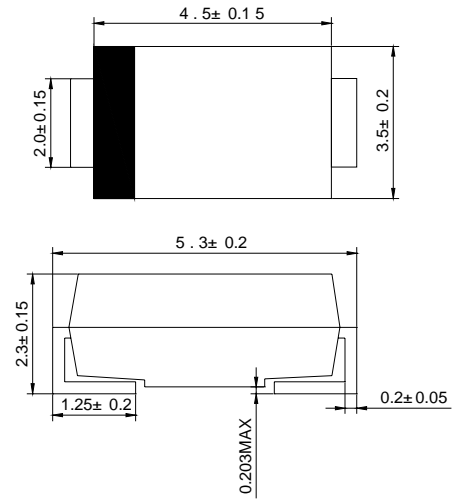
**FEATURES**

- Plastic package has underwriters laboratories flammability classification 94V-0
- For surface mount applications
- Glass passivated chip junctions
- Low profile package
- Easypick and place
- Ultrafast recovery times for high efficiency
- Low forward voltage,low power loss
- Built-in strain relief,ideal for automated placement
- High temperature soldering:  
250°C/10 seconds on terminals

**MECHANICAL DATA**

Case:JEDEC SMB,molded plastic body over passivated chip  
 Terminals:Solder Plated, solderable per MIL-STD-750, Method 2026  
 Polarity: Color band denotes cathode end  
 Weight: 0.003 ounces, 0.093 gram

**SMB**



Dimensions in millimeters

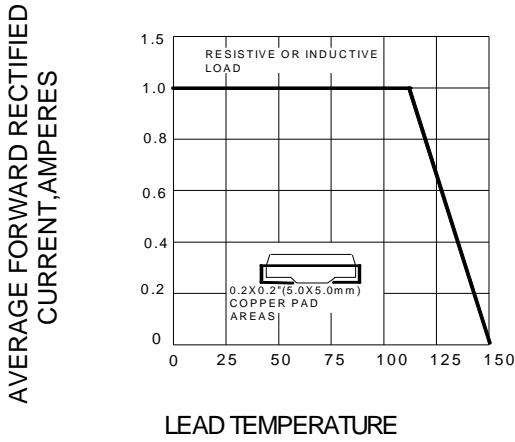
**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified

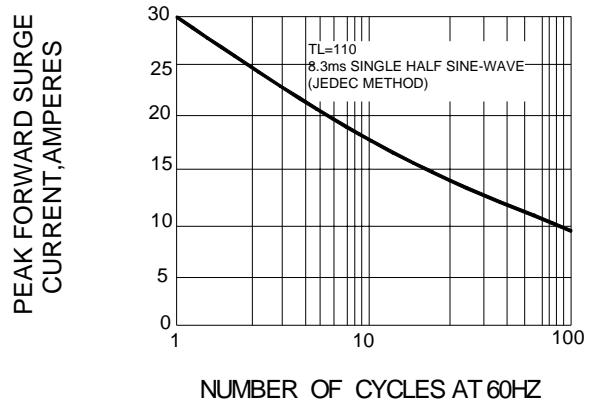
		US1AB	US1BB	US1DB	US1GB	US1JB	US1KB	US1MB	UNITS
Device marking code		US1AB	US1BB	US1DB	US1GB	US1JB	US1KB	US1MB	
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RWS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at $T_L=110^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load(JEDEC Method)	$I_{FSM}$	30.0							A
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.0				1.7			V
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	$I_R$	5.0				100.0			$\mu$
Maximum reverse recovery time at $I_F=0.5A$ $I_R=1.0A$ $I_r=0.25A$	$t_{rr}$	50				75			ns
Typical junction capacitance at 4.0V, 1MHz	$C_J$	20				15			pF
Maximum thermal resistance (NOTE1)	$R_{JA}$ $R_{JL}$	55				20			$^\circ\text{C}/\text{W}$
Operating temperature range	$T_J$	-55----- +150							$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55----- +150							$^\circ\text{C}$

NOTE: 1.P.C.B.mounted on 0.2X0.2"(5.0X5.0mm) copper pad area

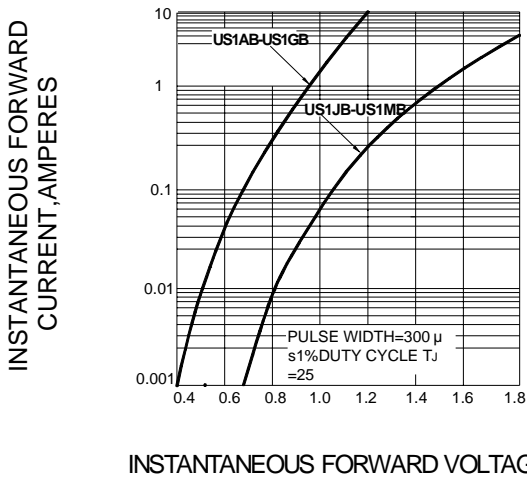
**FIG.1 – FORWARD CURRENT DERATING CURVE**



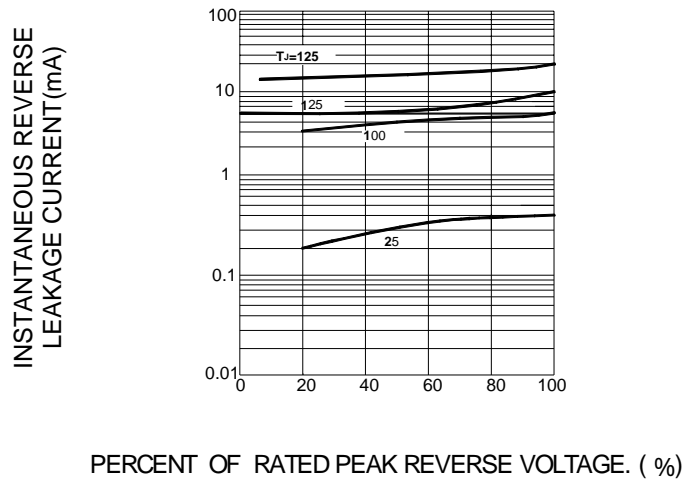
**FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



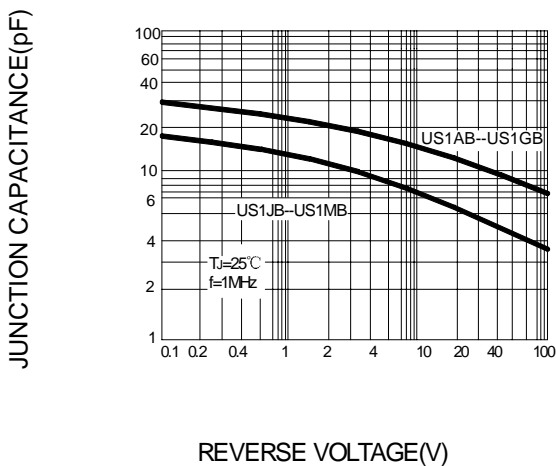
**FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5 – TYPICAL JUNCTION CAPACITANCE**



**FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE**

