

## SURFACE MOUNT RECTIFIERS

REVERSE VOLTAGE: 50 --- 1000 V  
CURRENT: 2.0 A

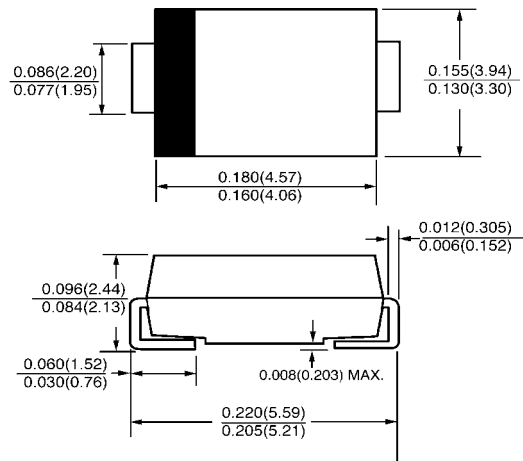
### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief, ideal for automated placement
- High current capability
- High temperature soldering: 250°C/10 seconds at terminals

### MECHANICAL DATA

- Case: JEDEC DO-214AA, molded plastic 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

### DO - 214AA(SMB)



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		S2A	S2B	S2D	S2G	S2J	S2K	S2M	UNITS
Device marking code		SA	SB	SD	SG	SJ	SK	SM	
Maximum recurrent 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 $T_L=100^\circ\text{C}$	$I_{(AV)}$	2.0							A
Peak forward surge current @ $T_L = 110^\circ\text{C}$ 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50.0							A
Maximum Instantaneous Forward Voltage at 2.0A	$V_F$	1.15							V
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	$I_R$	1.0 125.0							$\mu\text{A}$
Maximum reverse recovery time (NOTE 1)	$t_{rr}$	2.0							$\mu\text{S}$
Typical junction capacitance (NOTE 2)	$C_J$	30.0							pF
Typical thermal resistance (NOTE 3)	$R_{JA}$ $R_{JL}$	53.0 16.0							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_{JTSTG}$	-55-----+150							$^\circ\text{C}$

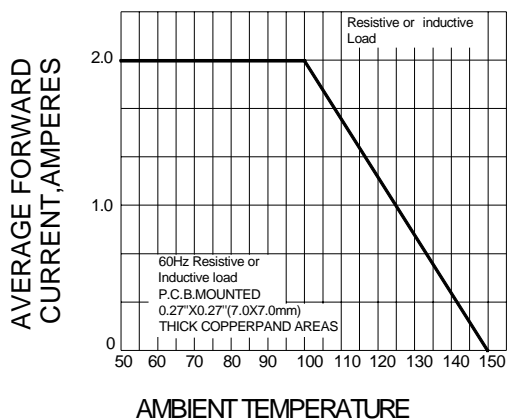
NOTE: 1.Reverse recovery time test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $t_{rr}=0.25\text{A}$

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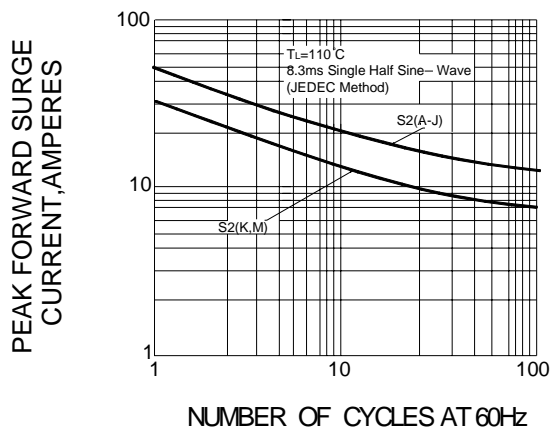
2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

3. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27"X0.27" (7.0X7.0mm<sup>2</sup>) copper pad areas

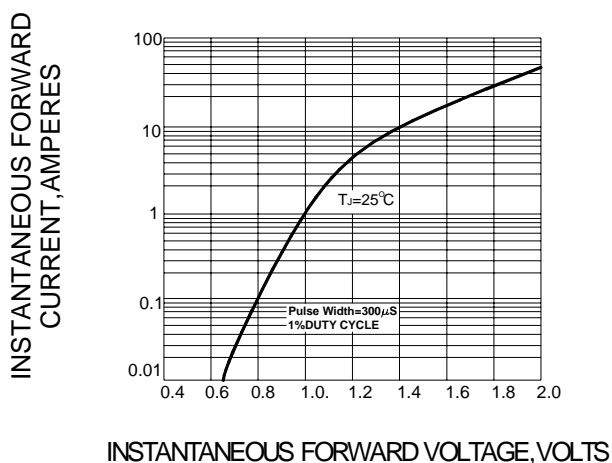
**FIG.1 – FORWARD DERATING CURVE**



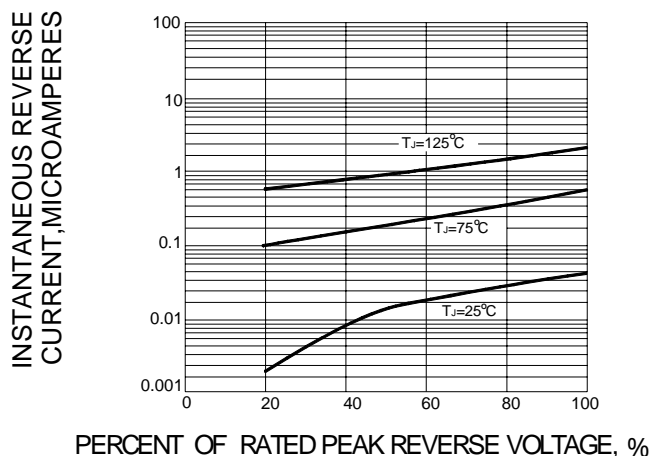
**FIG.2 PEAK FORWARD SURGE CURRENT**



**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

