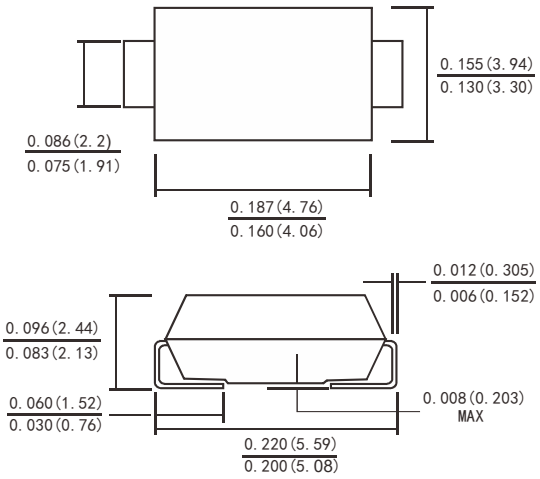
S3A~S3M

Surface Mount Glass Passivated Rectifier
Reverse Voltage - 50 to 1000 Volts
Forward Current -3.0Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- High temperature soldering guaranteed:260 ˚C/10 seconds at terminals
- Component in accordance to RoHS 200/95/EC and WEEE 200/96/EC

SMB(DO-214AA)



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC DO-214AA molded plastic over glass passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Polarity: Color band denotes cathode end
- Weight: 0.003 oz., 0.09 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		Symbols	S3A	S3B	S3D	S3G	S3J	S3K	S3M	Units
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average Forward Rectified Current 0.375"(9.5mm) lead length see Fig. 1		$I_{(AV)}$	3.0							Amp
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method) T_A=75˚C		I_{FSM}	80.0							Amps
Maximum Instantaneous Forward Voltage at 1.0 A		V_F	1.1							Volts
Maximum Reverse current at rated DC Blocking Voltage	T_A =25℃	I_R	5.0							μA
	T_A =125℃		50.0							
Typical Thermal resistance (Note 3)		$R_{\theta JA}$	75							˚C/W
		$R_{\theta JL}$	27							
Typical Junction Capacitance(Note 2)		C_J	12							pF
Operating and Storage temperature Range		T_J T_{STG}	-55 to+150 -55 to+150							˚C

Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V DC.
2.Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm)lead length, P.C.B. mounted

Ratings And Characteristic Curves

S3A~S3M

FIG.1-FORWARD CURRENT DERATING CURVE

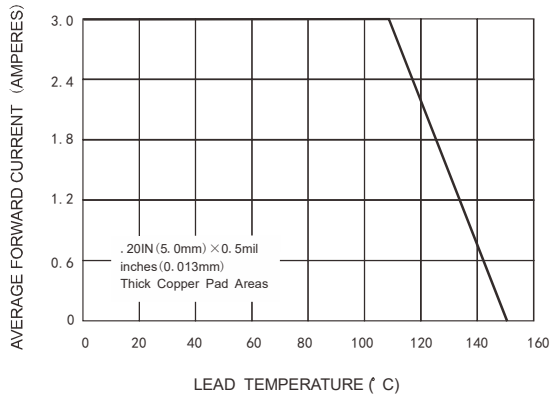


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

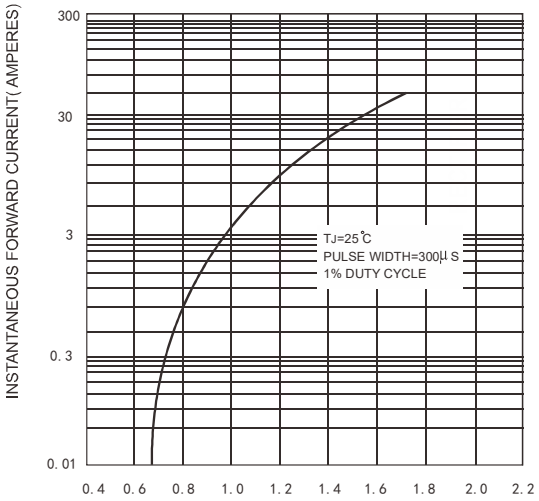


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

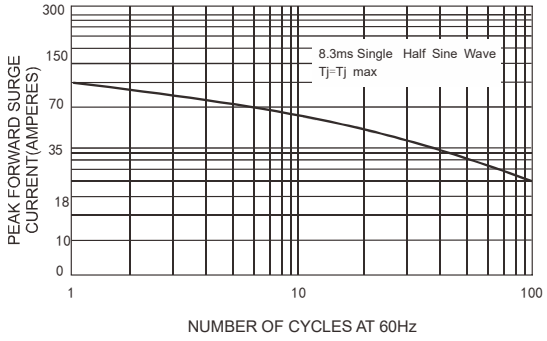


FIG.4-TYPICAL REVERSE CHARACTERISTICS

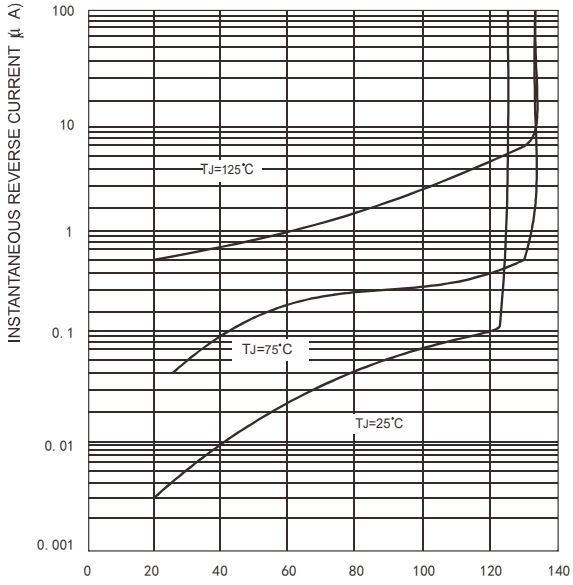


FIG.5-TYPICAL JUNCTION CAPACITANCE

