



MASTER INSTRUMENT CORPORATION

SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER S3AB THRU S3MB

VOLTAGE RANGE 50 to 1000 Volts
Forward Current 3.0 Amperes

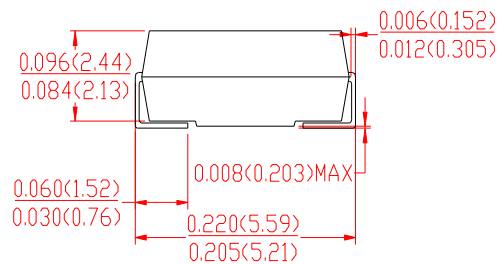
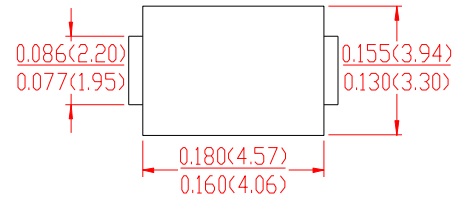
FEATURES

- l Plastic package has Underwrites Laboratory Flammability Classification 94V-0
- l For surface mounted applications
- l Low profile package
- l Built –in strain relief, ideal for automated placement
- l Glass passivated chip junction
- l High temperature soldering:
260 °C/10 seconds at terminals

MECHANICAL DATA

- l Case: JEDEC DO-214AB molded plastic body over Passivated chip
- l Terminals: Solder Plated, solderable per MIL-STD-750 Method 2026
- l Polarity: Color band denotes cathode end
- l Weight: 0.003ounce, 0.093gram

SMB(DO-214AA)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	UNITS	
Maximum Repetitive 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 at $T_L=75^\circ\text{C}$ (NOTE 3)	$I_{(AV)}$	3.0							Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L=75^\circ\text{C}$	I_{FSM}	100.0							Amps	
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.15							Volts	
Maximum DC Reverse Current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	I_R							10.0	μA
	$T_A=125^\circ\text{C}$								250.0	
Typical junction capacitance (NOTE 1)	C_j	60.0							pF	
Typical Thermal Resistance (NOTE 2)	R_{QJA}	47.0							$^\circ\text{C}/\text{W}$	
	R_{QJL}	13.0								
Operating junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$	

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.33 0.3" (8.03 8.0mm) copper pad areas.



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RECTIFIER
S3AB THRU S3MB**

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RATING AND CHARACTERISTIC CURVES S3AB Thru S3MB

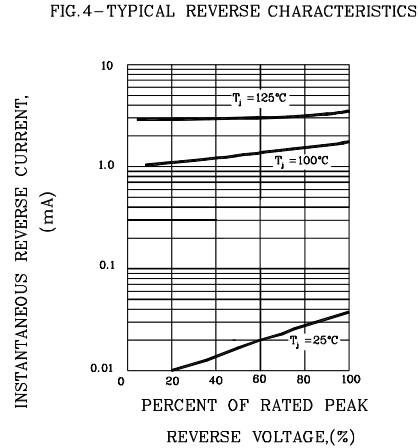
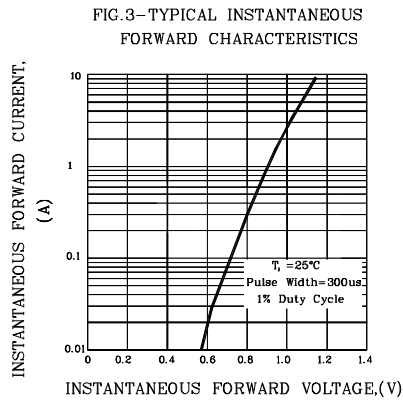
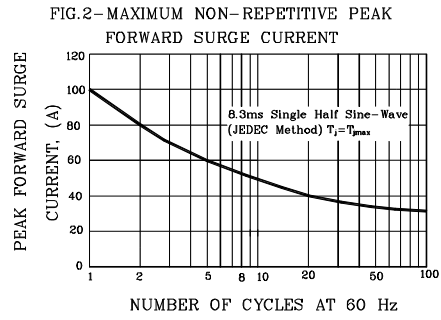
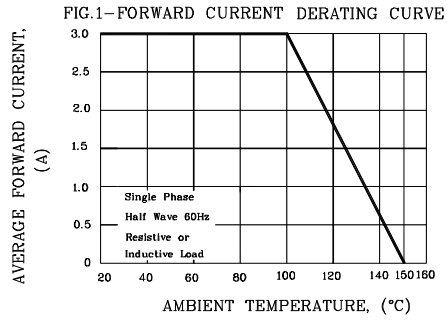


FIG.4-TYPICAL JUNCTION CAPACITANCE

