



MASTER INSTRUMENT CORPORATION

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER
SS22 THRU SS210**

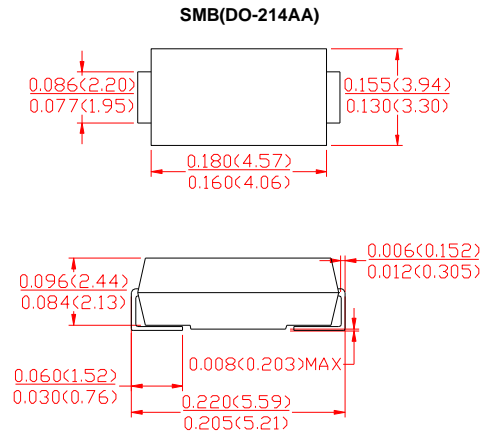
**VOLTAGE RANGE 20 to 100 Volts
Forward Current 2.0 Amperes**

FEATURES

- | For surface mount applications
- | Metal-Semiconductor Junction with Guarding
- | Epitaxial Construction
- | Metal-Semiconductor Junction with Guarding
- | Very Low forward voltage drop
- | High Current capability
- | For use in low voltage, high frequency inverters, Free wheeling, and polarity protection applications
- | High temperature soldering guaranteed:
250°C/10 seconds at terminals

MECHANICAL DATA

- | Case: Molded Plastic
- | Terminals: Solder Plated, Solderable per MIL-STD-750 Method 2026
- | Polarity: Indicated by Cathode Band
- | Weight: 0.003ounce, 0.093gram



Dimensions in inches and (millimeters)

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	SS22	SS23	SS24	SS25	SS26	SS28	SS29	SS210	UNITS	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	90	100	Volts	
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	63	70	Volts	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	90	100	Volts	
Maximum Average Forward Rectified Current at $T_L=105^\circ\text{C}$	$I_{(AV)}$	2.0								Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50								Amps	
Maximum Forward Voltage at 2.0A DC	V_F	0.55			0.75		0.85			Volts	
Maximum DC Reverse Current at rated DC blocking voltage (Note 1)	I_R	$T_A=25^\circ\text{C}$								0.5	mA
		$T_A=100^\circ\text{C}$								15.0	
Typical Junction Capacitance (Note 1)	C_j	75								pF	
Typical thermal capacitance (Note 2)	R_{QJL}	15								$^\circ\text{C/W}$	
Operating Temperature Range	T_J	-55 to +125								$^\circ\text{C}$	
Storage temperature range	T_{STG}	-55 to +150									

NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal Resistance Junction to Lead.



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RATING AND CHARACTERISTIC CURVES SS22 thru SS210

FIG.1-FORWARD CURRENT DERATING CURVE

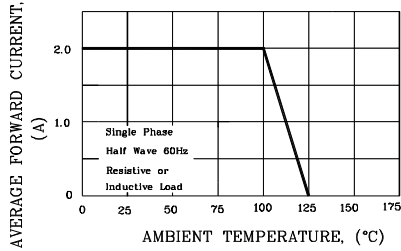


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

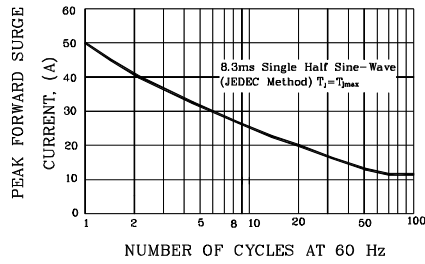


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

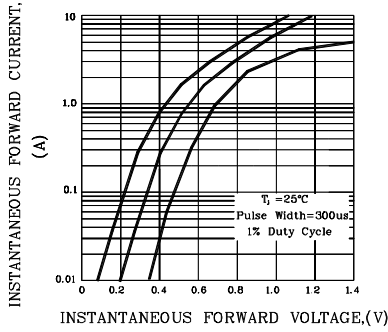


FIG.4-TYPICAL JUNCTION CAPACITANCE

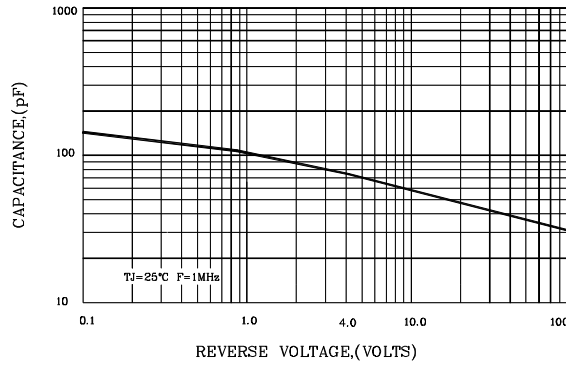


FIG.5-TYPICAL REVERSE CHARACTERISTICS

