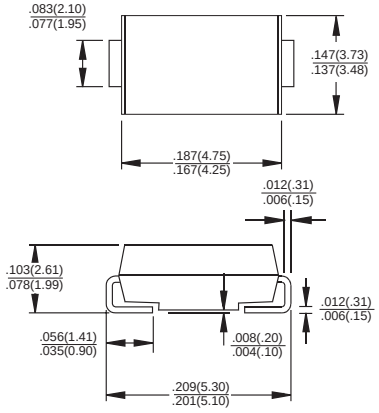
SCHOTTKY BARRIER RECTIFIERS

SMB/DO-214AA



Dimensions in inches and (millimeters)

PRODUCT SUMMARY

2.0 AMPS Surface Mount

FEATURES

For surface mounted application
Easy pick and place
Metal to silicon rectifier, majority carrier conduction
Low power loss, high efficiency
High current capability, low VF
High surge current capability
Plastic material used carriers Underwriters
Laboratory Classification 94V-0
Epitaxial construction
High temperature soldering:
260°C / 10 seconds at terminals

MECANICAL DATA

Case: Molded plastic
Terminals: Pure tin plated, lead free.
Polarity: Indicated by cathode band
Packaging: 12mm tape per EIA STD RS-481
Weight: 0.093gram

Pb-free; RoHS-compliant

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Type Number	Symbol	SS 22	SS 23	SS 24	SS 25	SS 26	SS 29	SS 210	SS 215	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	63	70	105	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	90	100	150	V
Maximum Average Forward Rectified Current at T_L(See Fig. 1)	$I_{(AV)}$	2.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50								A
Maximum Instantaneous Forward Voltage (Note 1) IF= 2.0A @ 25°C @ 100°C	V_F	0.5 0.4			0.70 0.65		0.85 0.70		0.95 0.80	V
Maximum DC Reverse Current @ T_A =25°C at	I_R	0.4					0.1			mA
Rated DC Blocking Voltage @ T_A=125°C		10			5.0					mA
Typical Junction Capacitance (Note 3)	Cj	130								pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	17 75								°C/W
Operating Temperature Range	T_J	-65 to +125			-65 to +150					°C
Storage Temperature Range	T_{STG}	-65 to +150								°C

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
2. Measured on P.C.Board with 0.4" x 0.4"(10mm x 10mm) Copper Pad Areas.
3. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (SS22 THRU SS215)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

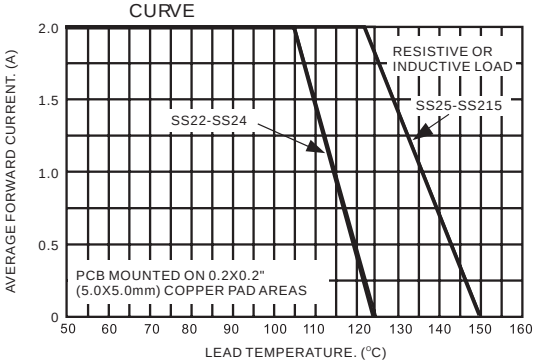


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

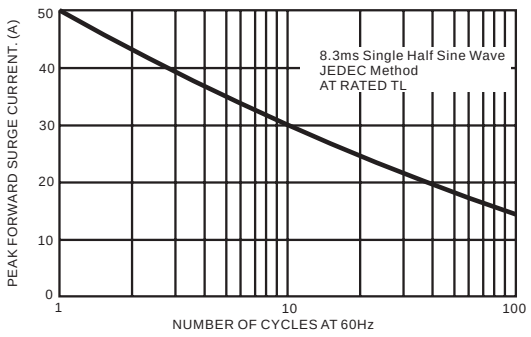


FIG.3- TYPICAL FORWARD CHARACTERISTICS

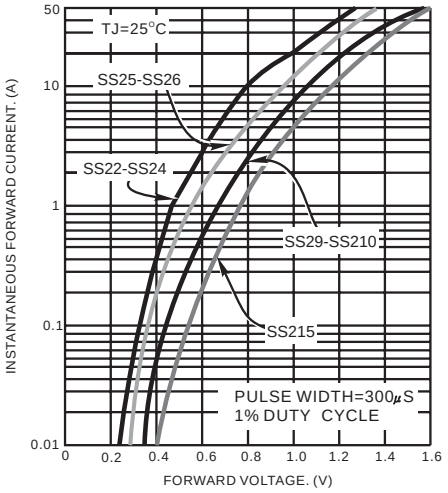


FIG.4-TYPICALREVERSE CHARACTERISTICS

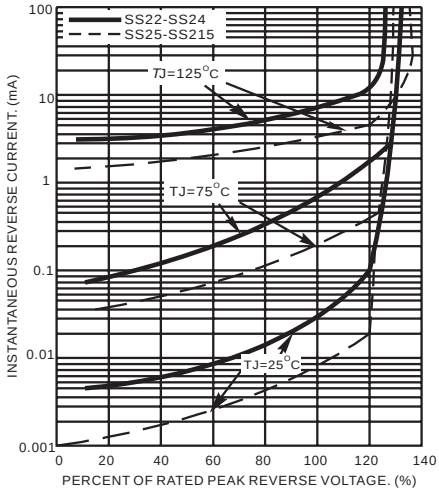


FIG.5-TYPICAL JUNCTION CAPACITANCE

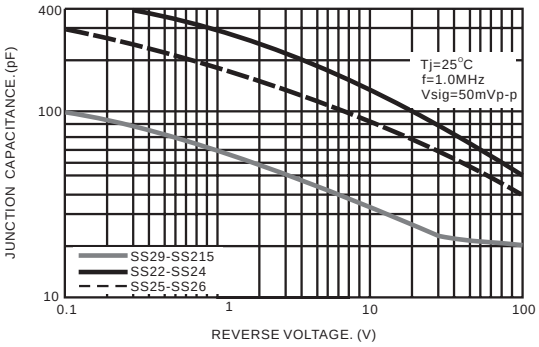


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS