

SMB



Features

Low forward voltage drop
 Guarding protection
 Glass passivated junction
 High current capability
 High efficiency operation
 Extremely low thermal resistance
 Halogen free and RoHS compliant

Mechanical Data

CASE: SMBJ(DO-214AA) Molded Plastic
 Polarity: Color band denotes cathode end
 Mounting position: ANY
 Weight: 0.0035 ounces, 0.098 gram

Maximum Ratings & Electrical Characteristics

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

CHARACTERISTICS	SYMBOL	SS1045B	SS1060B	SS10100B	UNITS
	Marking	SS1045	SS1060	SS10100	
Maximum repetitive peak reverse voltage	V_{RRM}	45	60	100	V
Maximum RMS voltage	V_{RWS}	31	42	70	V
Maximum DC blocking voltage	V_{DC}	45	60	100	V
Maximum average forward rectified current at $T_L=90^\circ\text{C}$	$I_{F(AV)}$	10.0			A
Peak forward surge current 8.3ms single half-sine-wave	I_{FSM}	120			A
Maximum instantaneous forward voltage at $I_{FM}=10.0\text{A}$ (NOTE1)	V_F	0.55	0.75	0.85	V
Maximum DC reverse current $T_J=25^\circ\text{C}$ at rated DC blocking voltage $T_J=125^\circ\text{C}$	I_R	0.2 50.0		0.1 10.0	m A
Maximum thermal resistance	$R_{\theta JL}$	28			$^\circ\text{C/W}$
Operating temperature range	T_J	-55 ---- +125			$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 ---- +150			$^\circ\text{C}$

NOTE: 1.Pulse test: Pulse width 300us,duty cycle 1 %

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SMB	Tape/Reel, 13" reel	3000	EIA-481-1

Ratings and Characteristic Curves

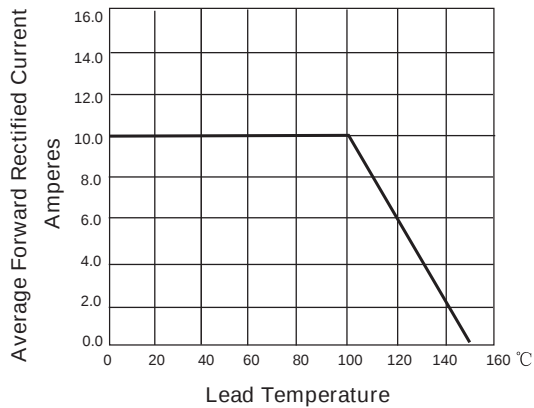


FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

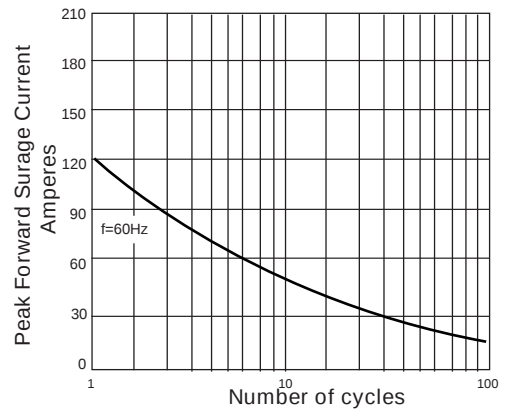


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

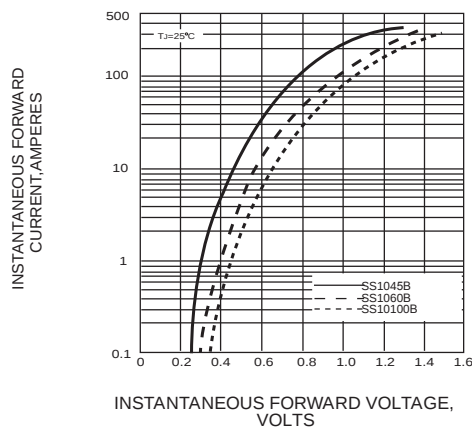


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

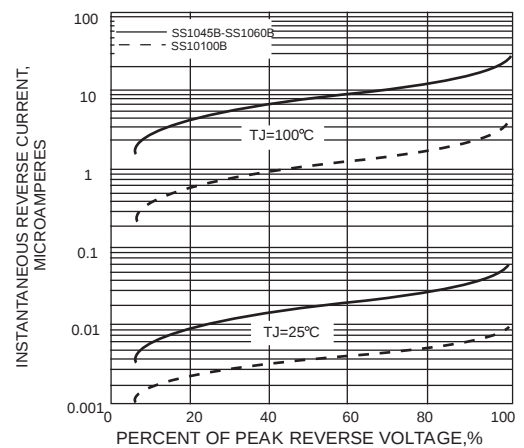


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

Package Outline Dimensions: SMB(DO-214AA)

Dim	Millimeters		Inches	
	Min	Max	Min	Max
L	4.4	4.6	0.173	0.181
D	3.5	3.7	0.138	0.146
D1	1.9	2.1	0.075	0.083
T	5.1	5.48	0.201	0.216
T1	1.0	1.6	0.039	0.063
d	-	0.2	-	0.008
H	2.2	2.45	0.087	0.096
H1	2.15	2.35	0.085	0.093