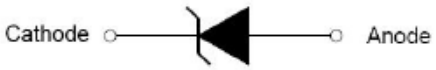
SMB



Features

- Low reverse leakage
- Glass passivated junction
- High forward surge current capability
- High efficiency operation
- The plastic package carries Underweiters Laboratory Flammability Classification 94V-0

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℃ ambient temperature unless otherwise specified. Single phase half-wave 60Hz,resistive or inductive load, for capacitive load current derate by 20%.)

Parameter	SYMBOLS	ES2DB	ES2JB	UNITS
	MARKING	ES2D	ES2J	
Maximum repetitive peak reverse voltage	V_{RRM}	200	600	V
Maximum RMS voltage	V_{RMS}	140	420	V
Maximum DC blocking voltage	V_{DC}	200	600	V
Maximum average forward rectified current at T_L =100 C	$I_{(AV)}$	2.0		A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50.0		A
Maximum instantaneous forward voltage at 2.0A	V_F	0.95	1.70	V
Maximum DC reverse current T_A =25 C at rated DC blocking voltage T_A=125 C	I_R	10 500		u A
Maxinum reverse recovery time(Note 1)	Trr	35		ns
Typical junction capacitance (Note2)	C_J	50.0		pF
Typical thermal resistance	R_{qJA}	65.0		C/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150		C

Note: 1.Reverse recovery time test condition: IF=0.5A IR=1.0A Irr=0.25A
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Summary of Packing Options

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

Ratings and Characteristic Curves

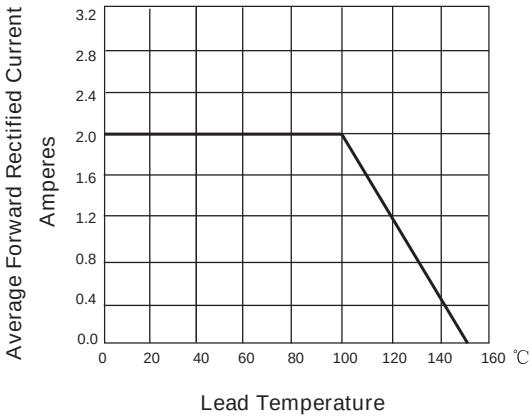


FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

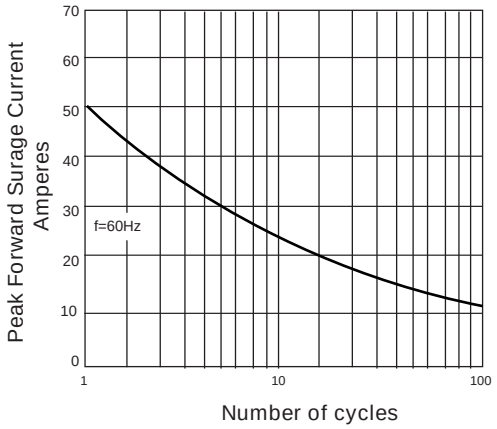


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

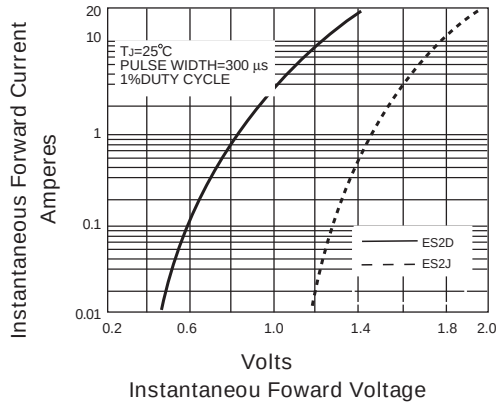


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

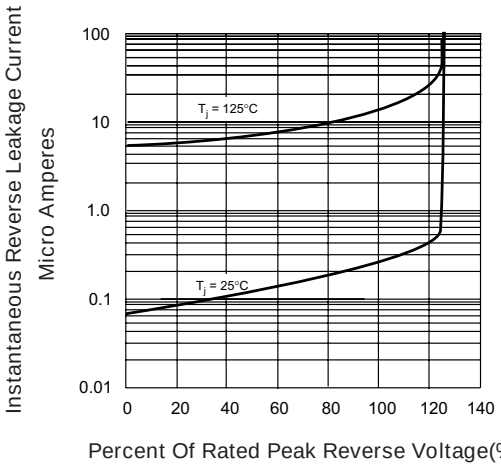
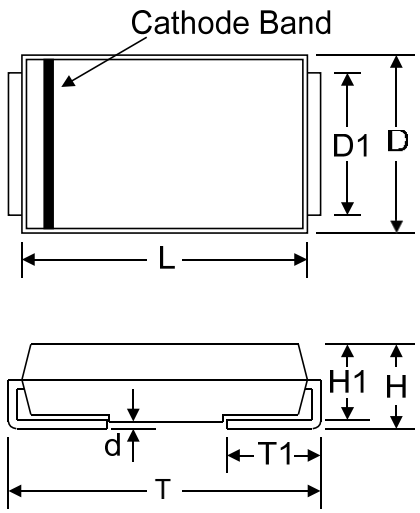


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

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