

RoHS Compliant Product

A suffix of "-C" specifies halogen-free and RoHS Compliant

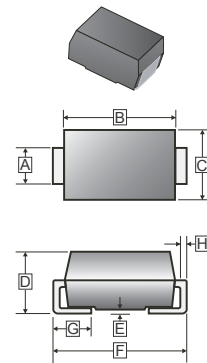
FEATURES

- Surface mount device
- High surge current capability
- Low reverse current
- Component in accordance to RoHS 2002/95/EC

MECHANICAL DATA

- Cases : DO-214AA(SMB)
- Case Material : Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals : Lead Free Plating(Tin Finish)
Solderable Per MIL-STD-202, Method 208
- Polarity : Cathode Band
- Weight : 0.092 grams(approximate)

SMB



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.91	2.20	E	-	0.203
B	4.06	4.75	F	5.08	5.59
C	3.30	3.94	G	0.76	1.52
D	1.95	2.65	H	0.15	0.31

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMB	3K	13 inch

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%)

Parameter	Symbol	Part Number							Unit
		SMF 101B	SMF 102B	SMF 103B	SMF 104B	SMF 105B	SMF 106B	SMF 107B	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	I_F	1							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage @ 1A	V_F	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_C=25^\circ C$	5							μA
	$T_C=100^\circ C$	200							
Typical Junction Capacitance ¹	C_J	20							pF
Maximum Reverse Recovery Time ²	T_{rr}	150			250		500		ns
Thermal Resistance ³	$R_{\theta JA}$	70							°C / W
Storage and Operating Temperature Range	T_{STG}, T_J	-55 ~ 150							°C

NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
2. Measured with $I_F=0.5A$, $I_R=1A$, $IRR=0.25A$
3. Device mounted on FR-4 substrate, 1"×1", 2oz, single-sided, PC boards with 0.1"×0.15" copper pad.

CHARACTERISTIC CURVES

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

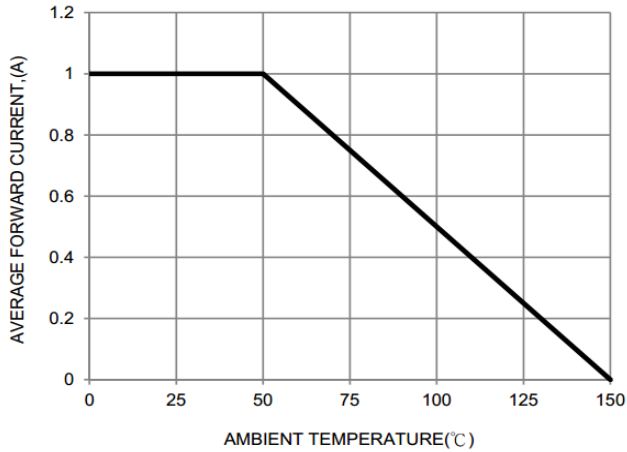


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

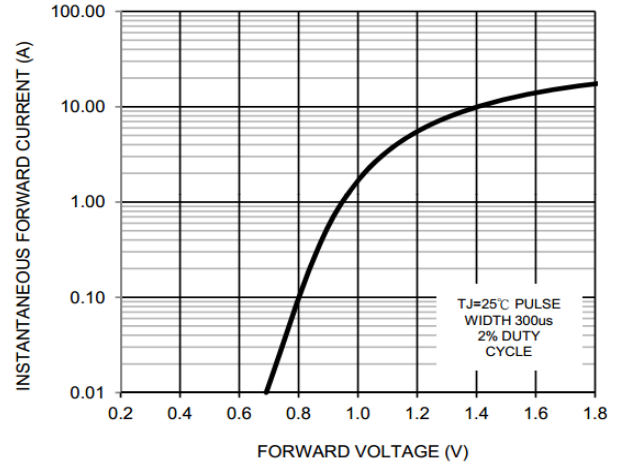


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

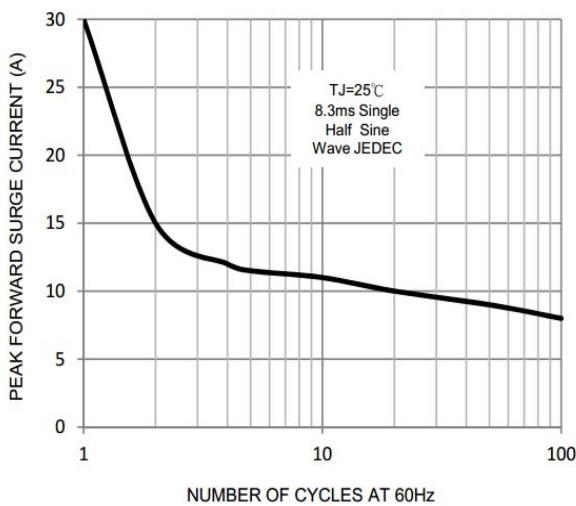


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

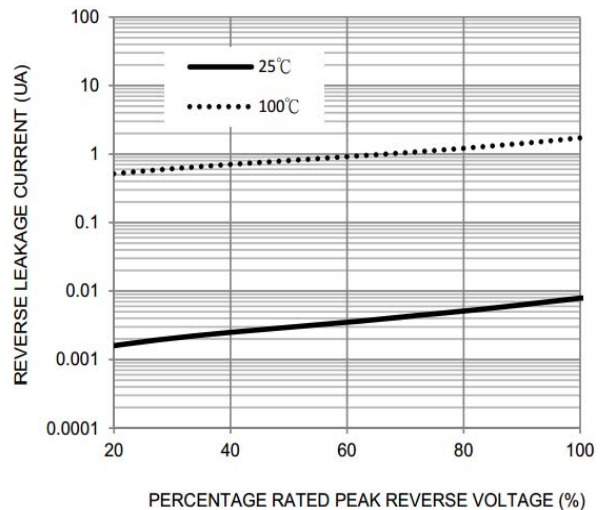


FIG. 5-TYPICAL JUNCTION CAPACITANCE

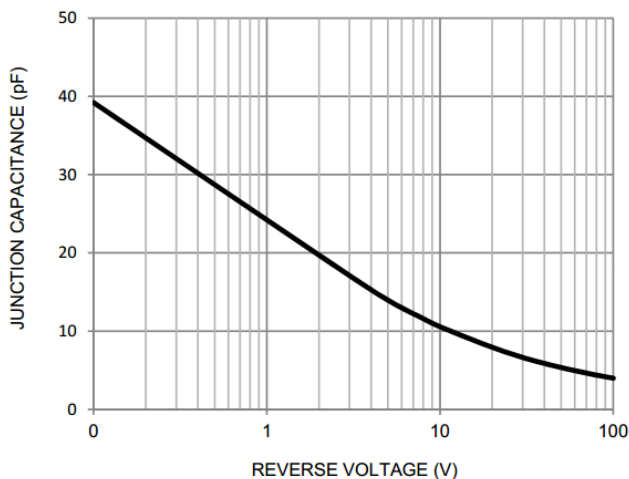


FIG. 6-Reverse Recovery Time Characteristic and Test Circuit

