

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- Super Fast switching speed under 35ns

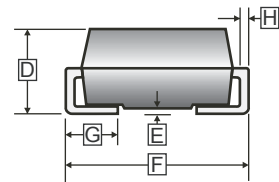
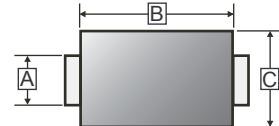
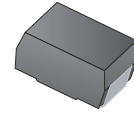
MECHANICAL DATA

- Case: Molded plastic SMB
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode
- Mounting position: Any
- Weight: 1.1 gram

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMB	3K	13' inch

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

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
		SUF301B	SUF302B	SUF303B	SUF304B	SUF305B	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	V
Maximum Average Forward Rectified Current.375"(9.5mm) Lead Length at $T_A=55^\circ C$	I_F	3					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	80					A
Maximum Instantaneous Forward Voltage @ 3A	V_F	0.98		1.25	1.7	V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_J=25^\circ C$	10					μA
	$T_J=125^\circ C$	500					
Maximum Reverse Recovery Time ¹	T_{RR}	35					nS
Typical Thermal Resistance	$R_{\theta JC}$	15					$^\circ C/W$
	$R_{\theta JA}$	50					$^\circ C/W$
Typical Junction Capacitance ²	C_J	45					pF
Operating & Storage Temperature	T_J, T_{STG}	-55~150					$^\circ C$

Notes:

1. Reverse Recovery Time test condition : $I_F=0.5A$, $I_R=1A$, $I_{RR}=0.25A$
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CHARACTERISTICS

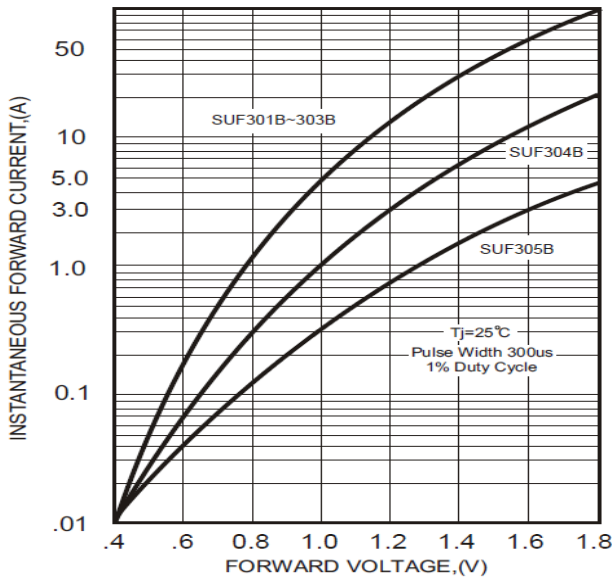


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

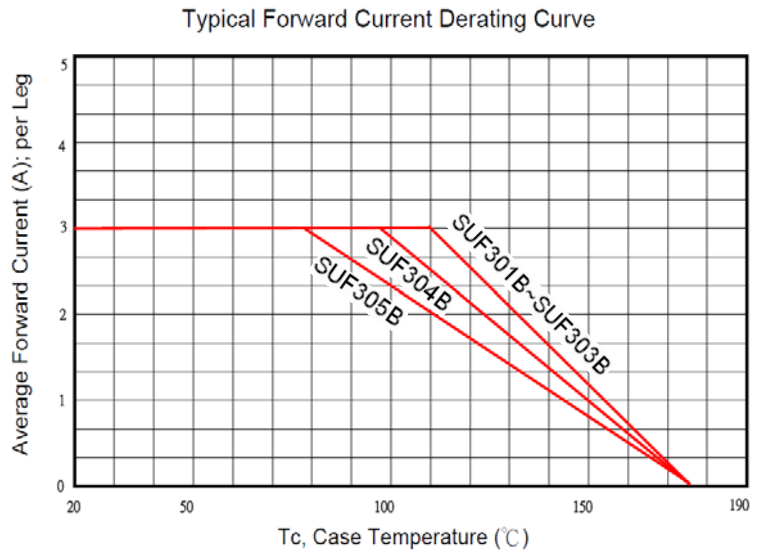
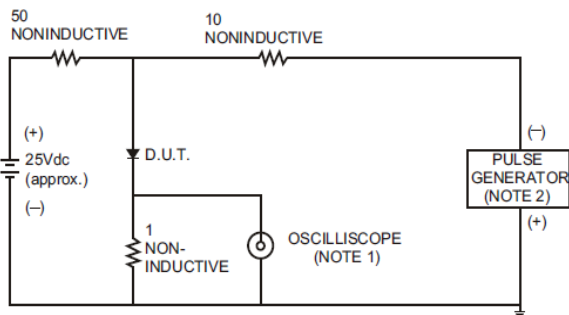


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

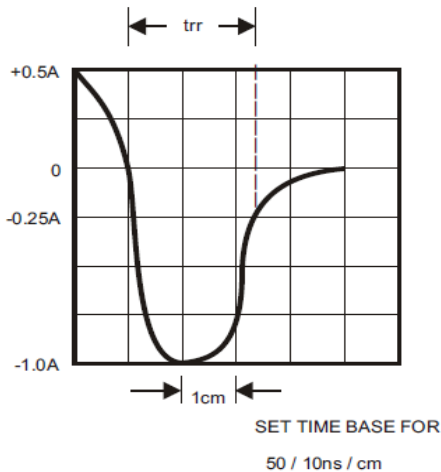
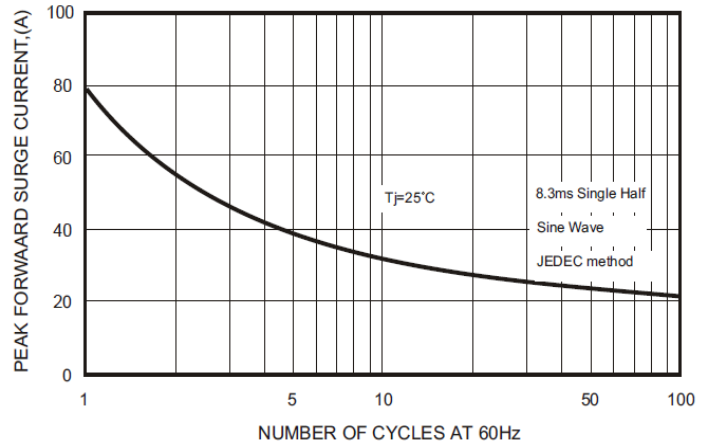


FIG.5-TYPICAL JUNCTION CAPACITANCE

