

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

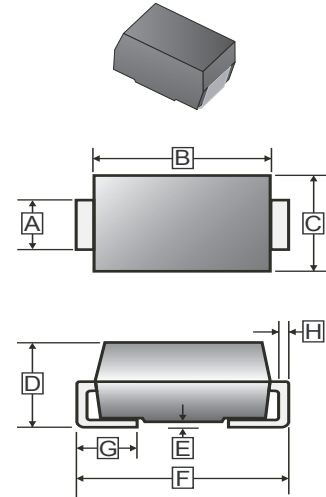
FEATURES

- Fast switching for high efficiency
- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability
- Glass passivated chip

MECHANICAL DATA

- Case: Molded Plastic SMB/DO-214AA
- Epoxy: UL 94V-0 Rate Flame Retardant
- Terminals: Solderable per MIL-STD-750 method 2026
- Polarity: Color Band Denotes Cathode
- Mounting Position: Any
- Weight: 0.093 gram

SMB



PACKAGE INFORMATION

Package	MPQ	Leader Size
SMB	3K	13' inch

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.91	2.20	E	-	0.203
B	4.00	4.70	F	5.08	5.59
C	3.25	3.94	G	0.75	1.52
D	2.11	2.44	H	0.15	0.305

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
		ES21B	ES22B	ES23B	
Maximum Recurrent Peak reverse voltage	V_{RRM}	50	100	200	V
Maximum RMS Voltage	V_{RMS}	35	70	140	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	V
Maximum Average Forward Rectified Current @ $T_A=90^\circ C$	$I_{F(AV)}$	2			A
Peak Forward Surge Current, 8.3 ms Half Sine-Wave superimposed on rated load(JEDEC method)	I_{FSM}	60			A
Maximum Instantaneous Forward Voltage @ 2.0A	V_F	0.9			V
Maximum DC Reverse Current At Rated DC Blocking Voltage	$T_J=25^\circ C$	5			μA
	$T_J=125^\circ C$	100			
Maximum Reverse Recovery Time ¹	T_{RR}	20			nS
Typical Junction Capacitance ²	C_J	50			pF
Maximum Thermal Resistance	$R_{\theta JA}$	45			$^\circ C / W$
Maximum Thermal Resistance	$R_{\theta JC}$	15			$^\circ C / W$
Operating and Storage Temperature	T_J, T_{STG}	-55 ~ 150			$^\circ C$

Notes:

1. Reverse recovery test conditions $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

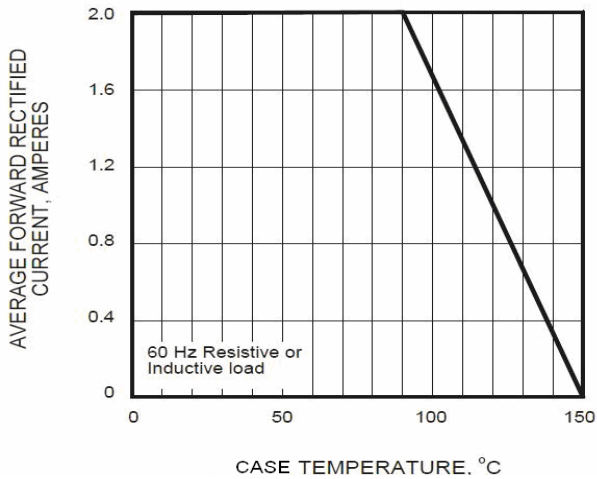


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

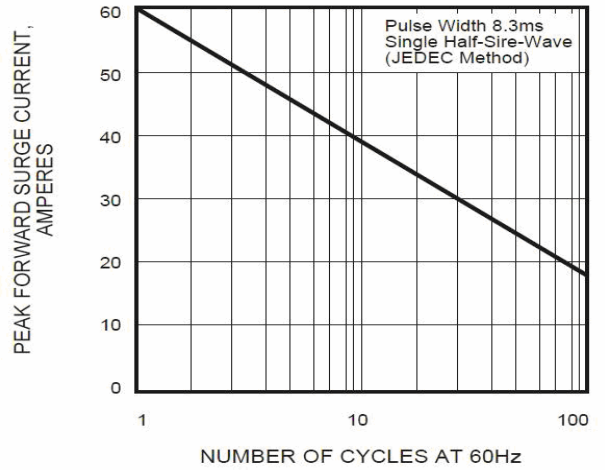


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

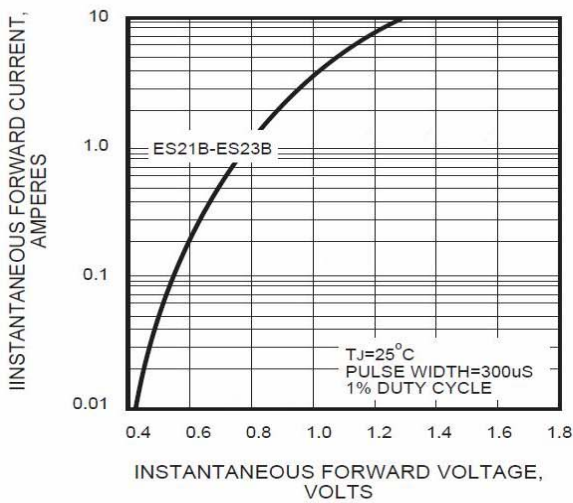


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

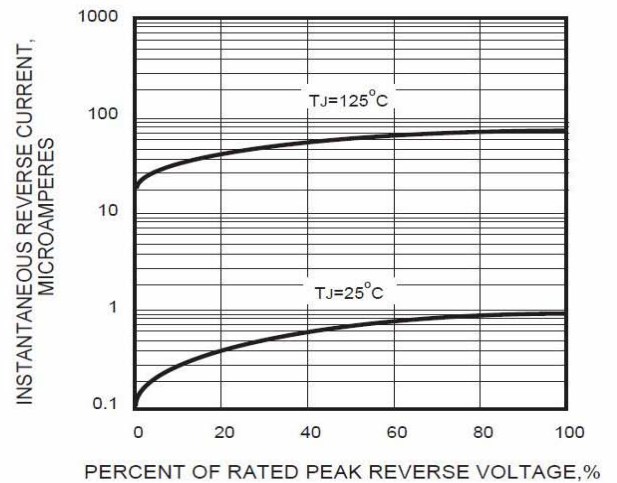


FIG.5 - TYPICAL JUNCTION CAPACITANCE

