

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
- Epoxy: UL 94V-0 Rate Flame Retardant
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode
- Mounting Position: Any

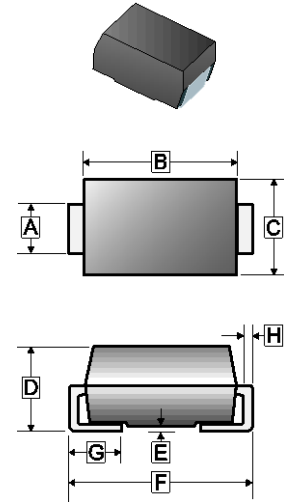
PACKAGE INFORMATION

Package	MPQ	Leader Size
SMB	3K	13 inch

ORDER INFORMATION

Part Number	Type
ES21B-C~ES23B-C	Lead (Pb)-free and Halogen-free

SMB



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.85	2.20	E	-	0.203
B	4.00	4.75	F	5.08	5.59
C	3.25	3.94	G	0.75	1.52
D	1.99	2.61	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
		ES21B-C	ES22B-C	ES23B-C	
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, 8.3ms Half Sine-Wave superimposed on rated load(JEDEC method)	I_{FSM}	60			A
Maximum Instantaneous Forward Voltage @2A	V_F	0.9			V
Maximum DC Reverse Current @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 MHz and applied reverse voltage of 4Volts D.C.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

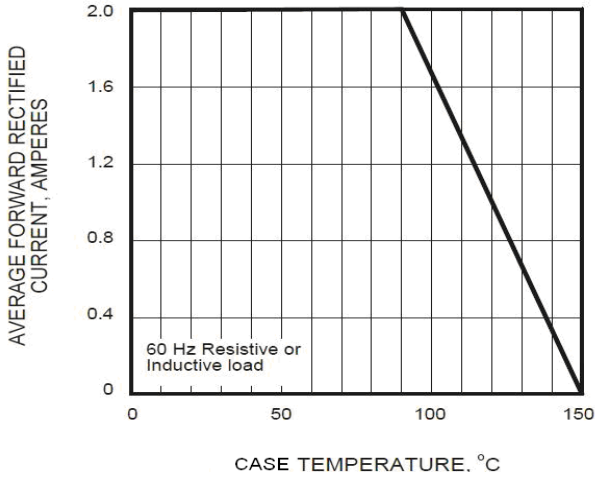


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

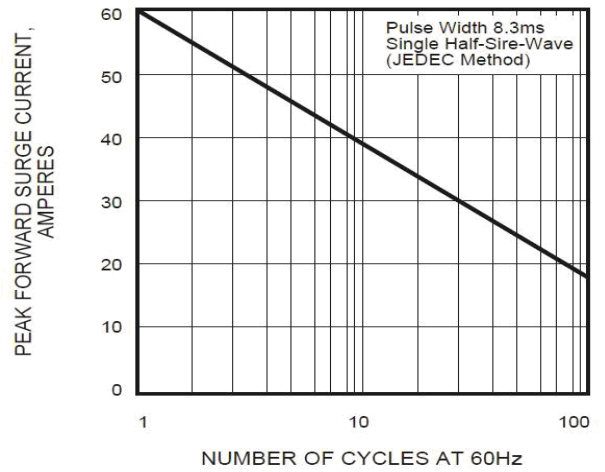


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

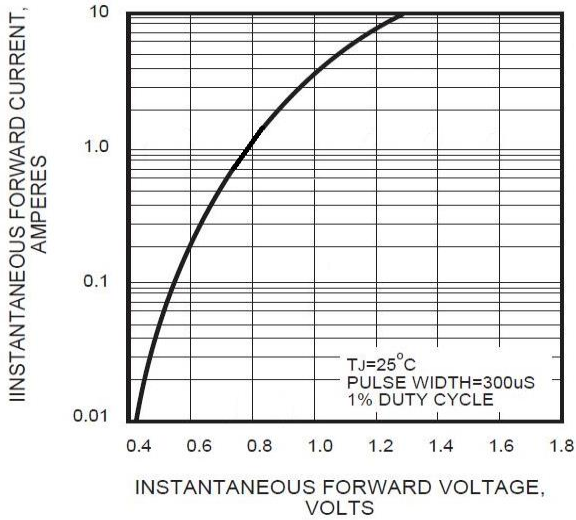


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

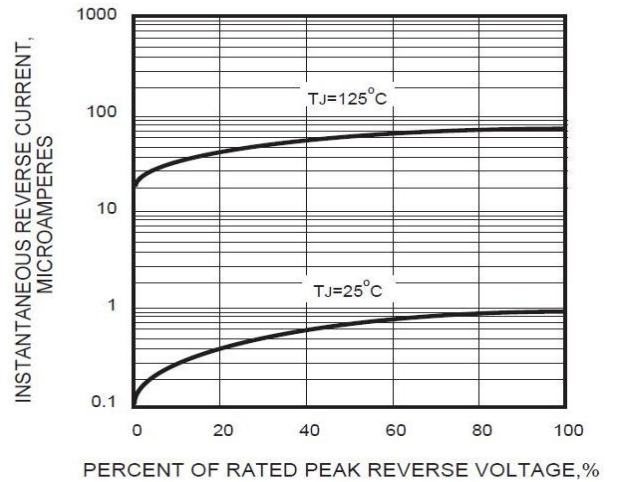


FIG.5 - TYPICAL JUNCTION CAPACITANCE

