

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

FEATURES

- Metal-Semiconductor junction with guarding
- Epitaxial construction
- Very low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0

Application

- For use in low voltage, high frequency inverters, free wheeling, and polarity protection.

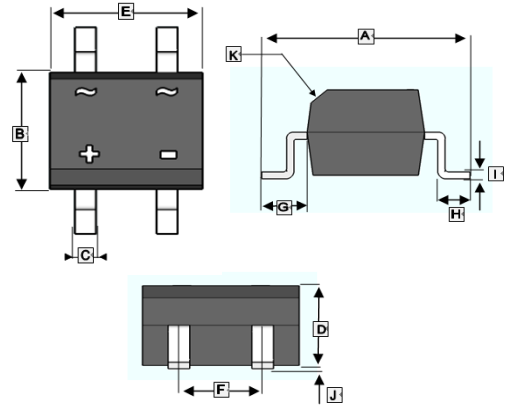
MECHANICAL DATA

- Case: Molded Plastic
- Polarity: Indicated by cathode band
- Weight: 0.0044 ounces, 0.125 grams

PACKAGE INFORMATION

Package	MPQ	Leader Size
MDS	3K	13 inch

MDS



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	-	7.0	G	1.3	1.7
B	3.6	4.2	H	0.7	1.1
C	0.5	0.8	I	0.1	0.35
D	2.3	2.7	J	0.2(TYP.)	
E	4.5	4.9	K	0.5*15°	
F	2.3	2.7			

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
		SB 22S	SB 23S	SB 24S	SB 25S	SB 26S	SB 27S	SB 28S	SB 210S	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	90	100	V
Maximum RMS Bridge Input Voltage	V_{RMS}	14	21	28	35	42	56	63	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	90	100	V
Maximum Average Forward Rectified Current @ $T_L=100^\circ\text{C}$	$I_{(AV)}$	2								A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	50								A
Maximum Forward Voltage @ 1A DC	V_F	0.55		0.7		0.85				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_J=25^\circ\text{C}$	1								mA
	$T_J=100^\circ\text{C}$	20								
Typical Junction Capacitance ¹	C_J	125								pF
Typical Thermal Resistance ²	$R_{\theta JL}$	20								°C / W
Operating and Storage temperature range	T_J, T_{STG}	-55~125, -55~150								°C

Note:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance junction to lead.

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

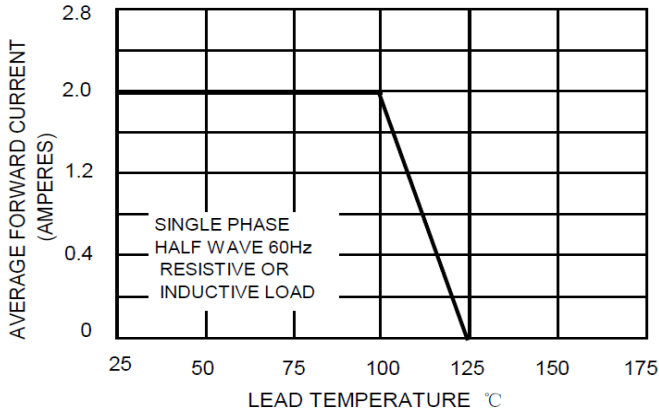


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

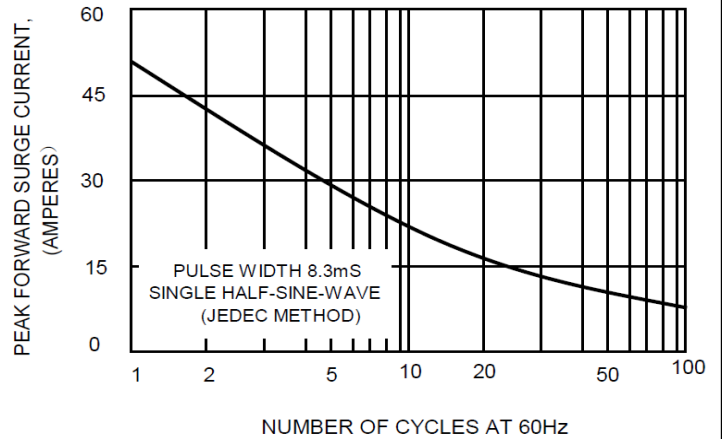


FIG.3-TYPICAL FORWARD CHARACTERISTICS

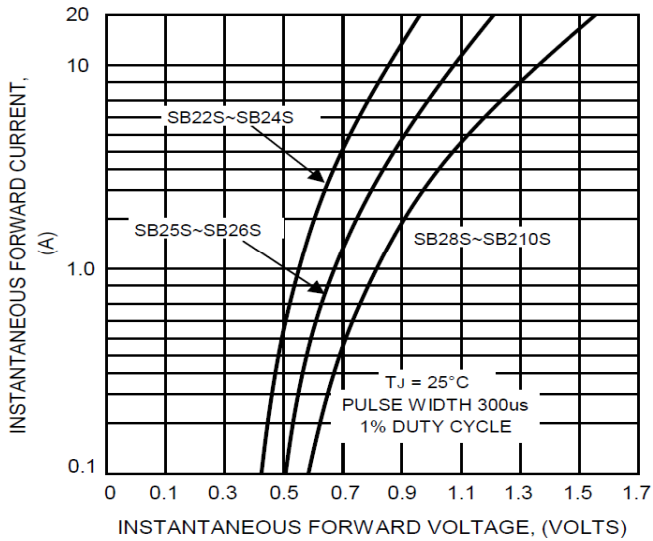


FIG.4-TYPICAL JUNCTION CAPACITANCE

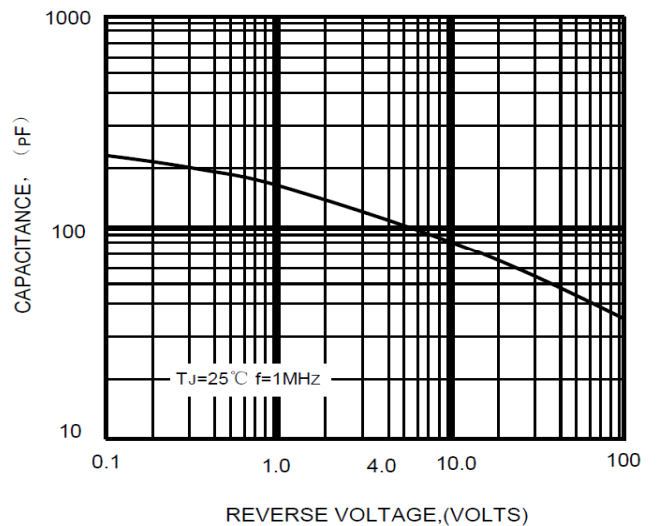


FIG.5-TYPICAL REVERSE CHARACTERISTICS

