



SDB12S thru SDB110S

Surface Mount Schottky Barrier Bridge Rectifiers

Reverse Voltage - 20 to 100 Volts
Forward Current - 1.0 Amperes

FEATURES

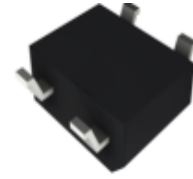
- For surface mounted applications
- Metal-Semiconductor junction with guarding
- Epitaxial construction
- Very low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

MECHANICAL DATA

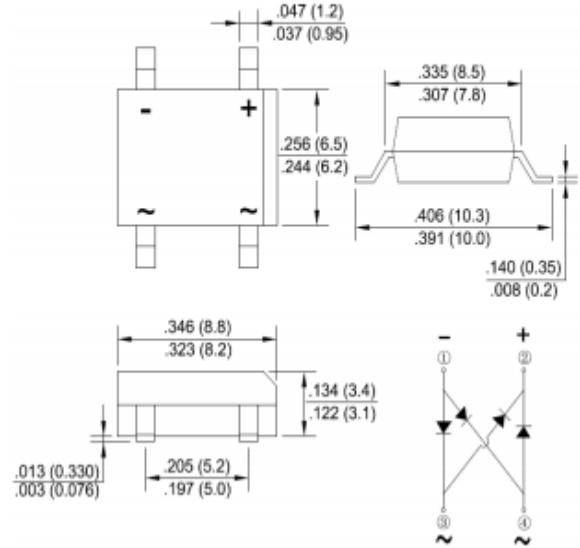
- Case: Molded Plastic
- Polarity: Indicated by cathode band
- Weight: 0.02 ounces, 0.38 grams

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

DBS



RoHS
COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	SDB12S	SDB13S	SDB14D	SDB15S	SDB16S	SDB18S	SDB110S	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current @ $T_L=100^\circ\text{C}$	$I_{(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	I_{FSM}	40							A
Maximum Forward Voltage at 1.0A DC	V_F	0.55		0.70		0.85			V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_J=25^\circ\text{C}$ @ $T_J=100^\circ\text{C}$	I_R	1.0							mA
		10							
Typical Junction Capacitance (Note1)	C_J	110							pF
Typical Thermal Resistance (Note2)	$R_{\theta JL}$	20							°C/W
Operating Junction Temperature Range	T_J	-55~+125							°C
Storage Temperature Range	T_{STG}	-55~+150							°C

NOTES: 1. Measured at 1.0MHZ and applied reverse voltage of 4.0 V DC.

2. Thermal resistance from junction to lead.

3. The typical data above is for reference only.



FIG. 1 - FORWARD CURRENT DERATING CURVE

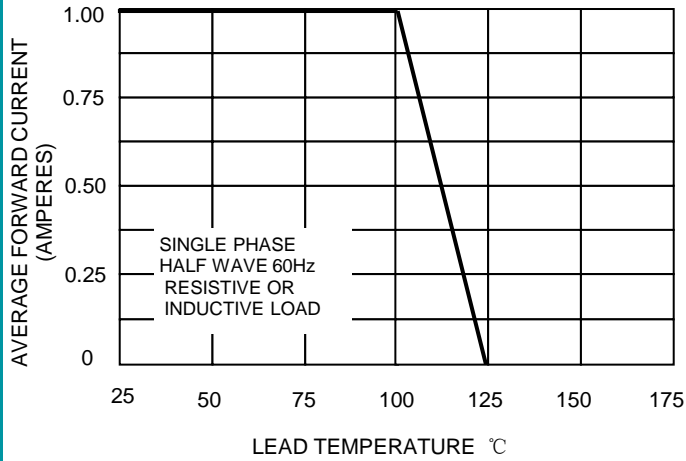


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

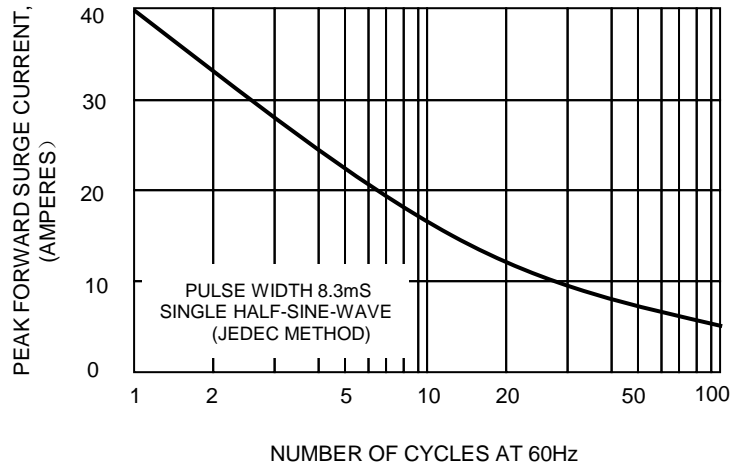


Fig. 3 - Typical Reverse Characteristics

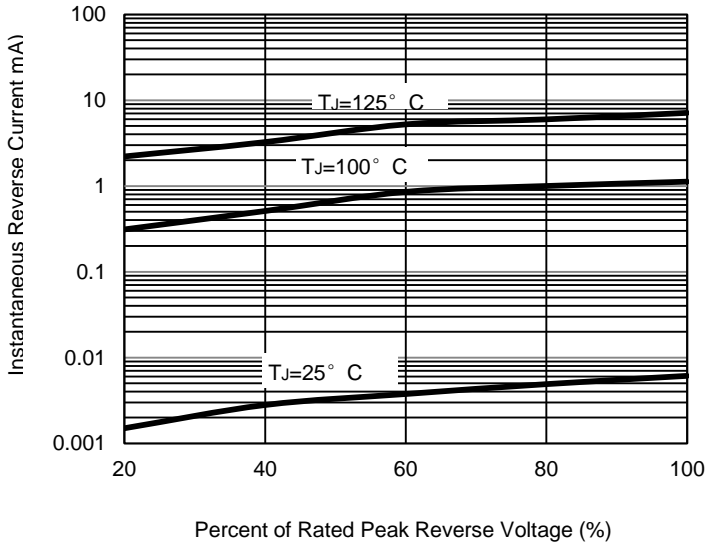


FIG.3-TYPICAL FORWARD CHARACTERISTICS

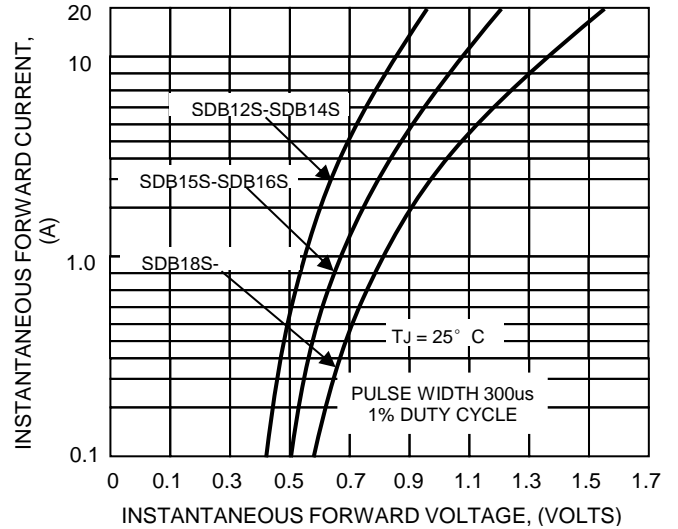
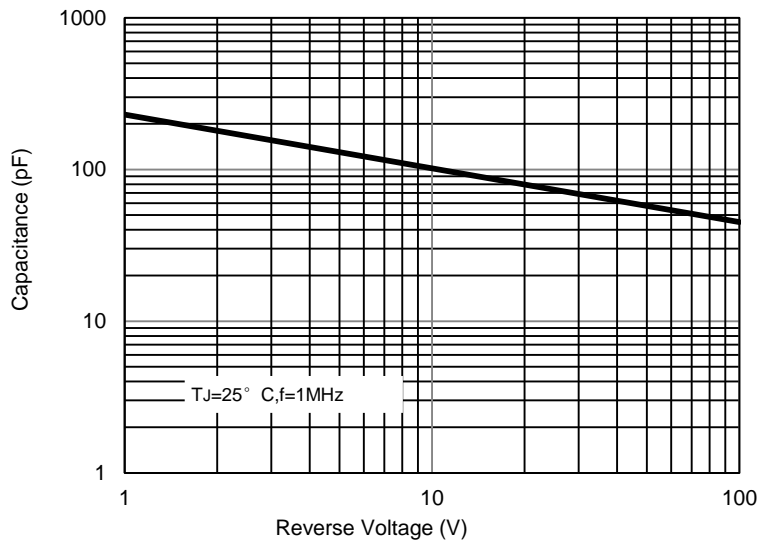


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.



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