

**Schottky Barrier Rectifiers**  
**Reverse Voltage 70V to 100V Forward Current 2.0 Amperes**

# SB270 thru SB2B0



## Features

- Metal semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

## Mechanical Characteristics:

- Case: JEDEC DO-204AC(DO-15) molded plastic
- Terminals: Tin plated axial leads, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode
- Mounting position: Any
- Weight : 0.014oz., 0.39grams

## 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%)

Parameter	Symbol	Type				Units
		SB270	SB280	SB290	SB2B0	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	70	80	90	100	V
Maximum RMS voltage	V <sub>RMS</sub>	49	56	81	70	V
Maximum DC blocking voltage	V <sub>DC</sub>	70	80	90	100	V
Maximum forward voltage at 2A	V <sub>F</sub>	T <sub>J</sub> =25°C				V
		0.79				
Maximum forward voltage at 2A	V <sub>F</sub>	T <sub>J</sub> =100°C				V
		0.69				
Maximum average forward rectified current @ T <sub>L</sub> =100°C	I <sub>F(AV)</sub>	2				A
Peak forward surge current @8.3ms single half sine wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	60				A
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	T <sub>J</sub> =25°C				mA
		0.5				
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	T <sub>J</sub> =100°C				mA
		10				
Typical thermal resistance (Note 1)	R <sub>θJA</sub>	20				°C/W
Typical junction capacitance (Note 2)	C <sub>J</sub>	50				pF
Operating junction temperature range	T <sub>J</sub>	-55 ~ +125				°C
Storage temperature range	T <sub>STG</sub>	-55 ~ +150				°C

Note: 1.Thermal resistance, junction to ambient.

2.Measured at 1.0MHz and applied reverse voltage of 4.0VDC

Ratings and Characteristic Curves

FIG.1 - FORWARD CURRENT DERATING CURVE

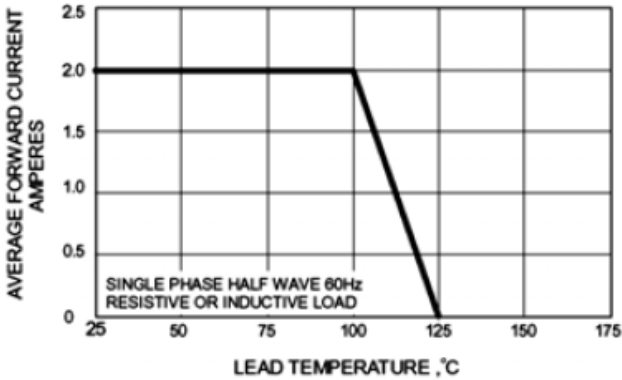


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

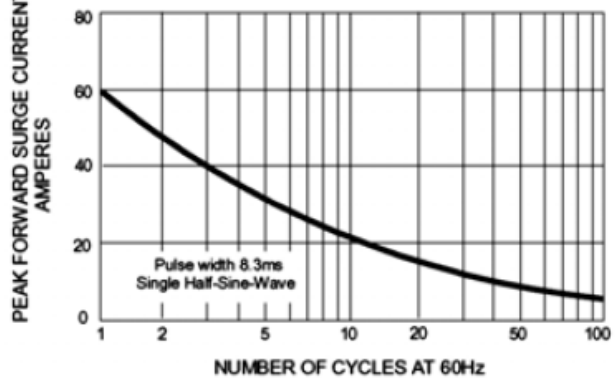


FIG.3 - TYPICAL JUNCTION CAPACITANCE

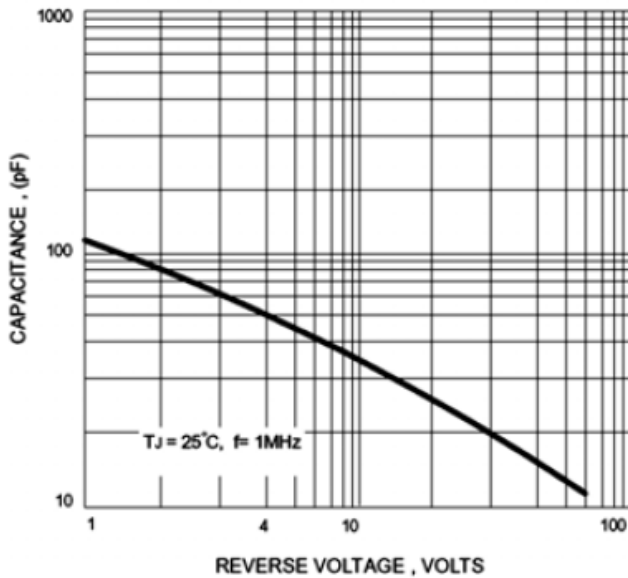


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

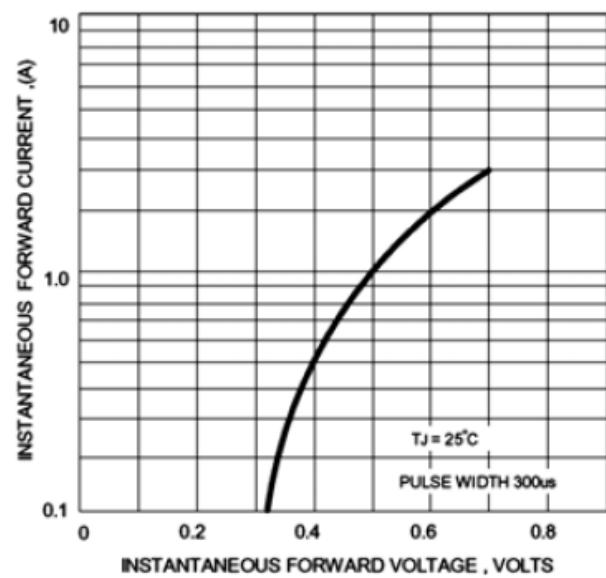
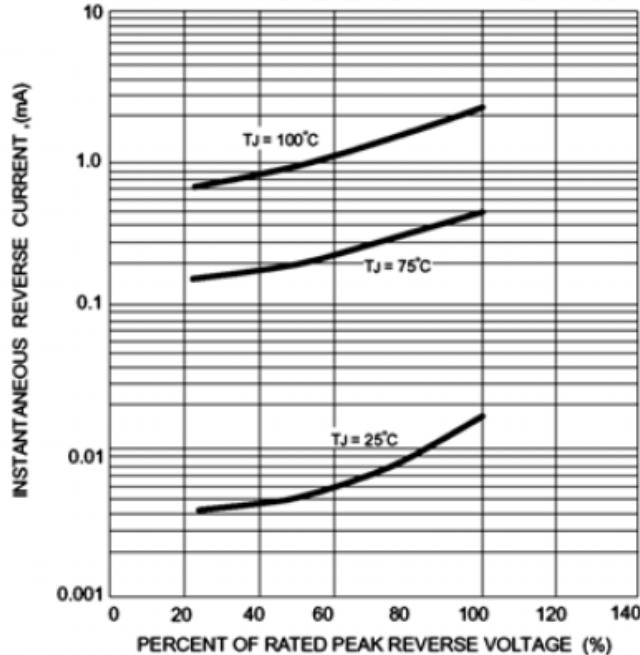
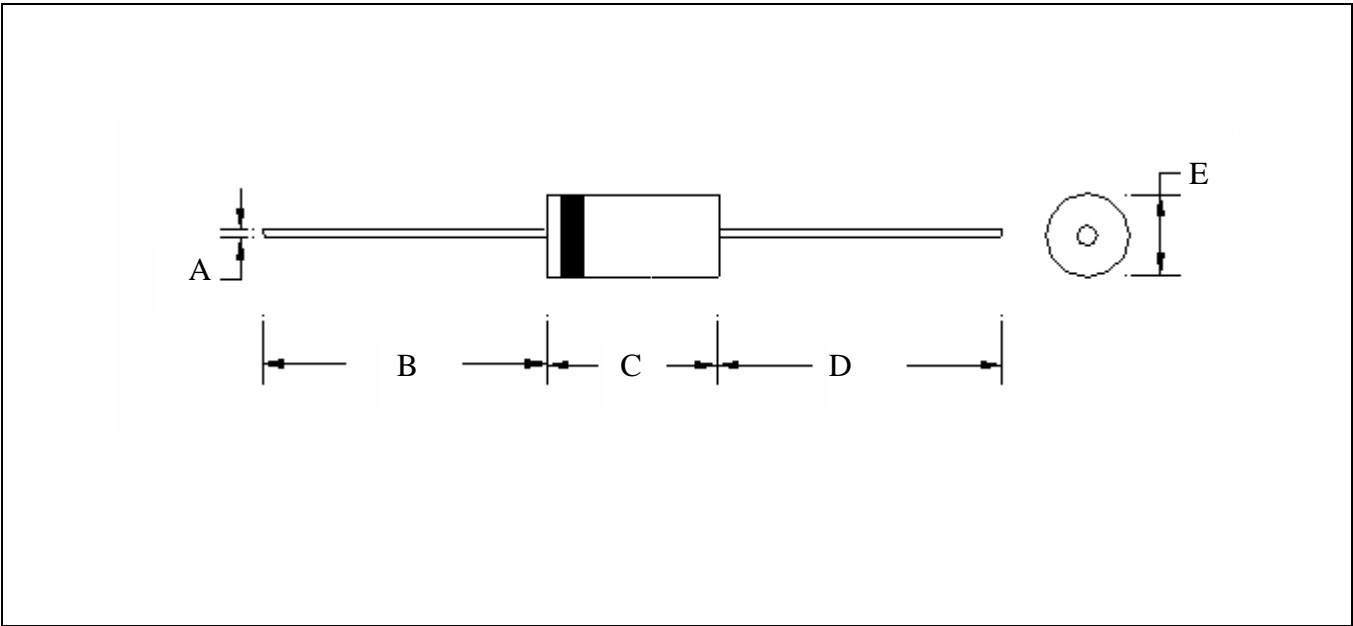


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



**DO-204AC(DO-15) Dimension**



\*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	φ0.028	φ0.034	φ0.70	φ0.90	D	1.000	-	25.40	-
B	1.000	-	25.40	-	E	φ0.104	φ0.140	φ2.60	φ3.60
C	0.2300	0.3000	5.80	7.60					

Notes : 1.Controlling dimension : millimeters.  
 2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.  
 3.If there is any question with packing specification or packing method, please contact your local CYStek sales office.

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