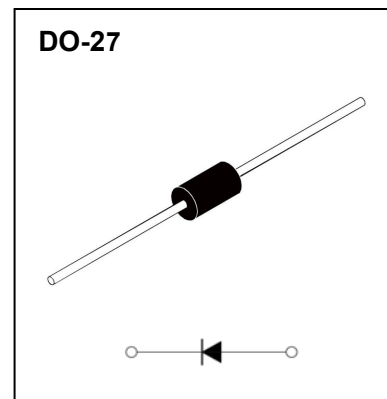


Features

- Metal silicon rectifier,majority carrier conduction
- Guard ring for transient protection
- Low power loss,high efficiency
- High surge capability
- High current capability,low VF
- For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: Molded plastic DO-27
- Polarity: Color band dentes cathode end
- Mounting Position: Any



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%

Type Number	SYMBOL	SB 1020	SB 1030	SB 1040	SB 1045	SB 1050	SB 1060	SB 1080	SB 10100	SB 10150	SB 10200	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	45	50	60	80	100	150	200	V
Maximum RMS Voltage	V _{RMS}	14	21	28	31.5	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	45	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current.375"(9.5mm) lead length@T _L =100°C	IF(AV)	10.0										A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150										A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	93.375										A ² s
Forward Voltage @IF=10.0A(Note 1)	V _{FM}	0.55				0.7		0.85		0.92		V
Peak Reverse Current @T _A =25°C	I _R	0.3						0.05				mA
At Rated DC Blocking Voltage @T _A =100°C		10						5				
Typical Junction Capacitance (Note2)	C _J	450										pF
Typical Thermal Resistance Junction to case	R _{θJA}	3.0										°C/W
Operating Temperature Range	T _J	-55 to +150										°C
/Storage Temperature Range	T _{STG}	-55 to +150										°C

Note:1. 300us Pulse Width,2%Duty Cycle

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

FIG.1-FORWARD CURRENT DERATING CURVE

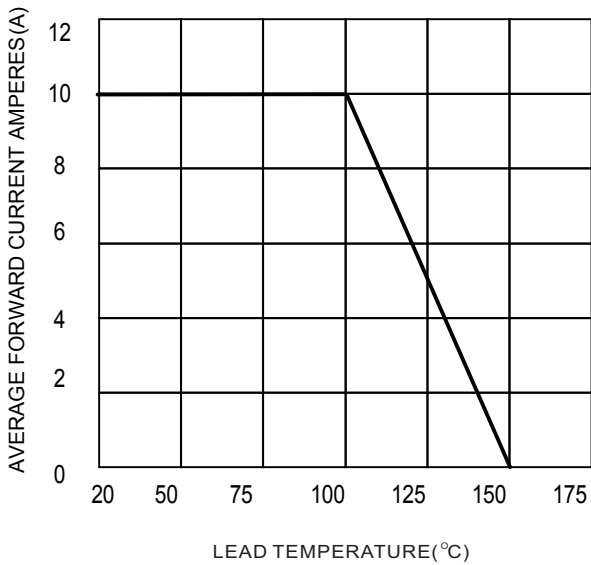


FIG.2-TYPICAL FORWARD CHARACTERISTICS

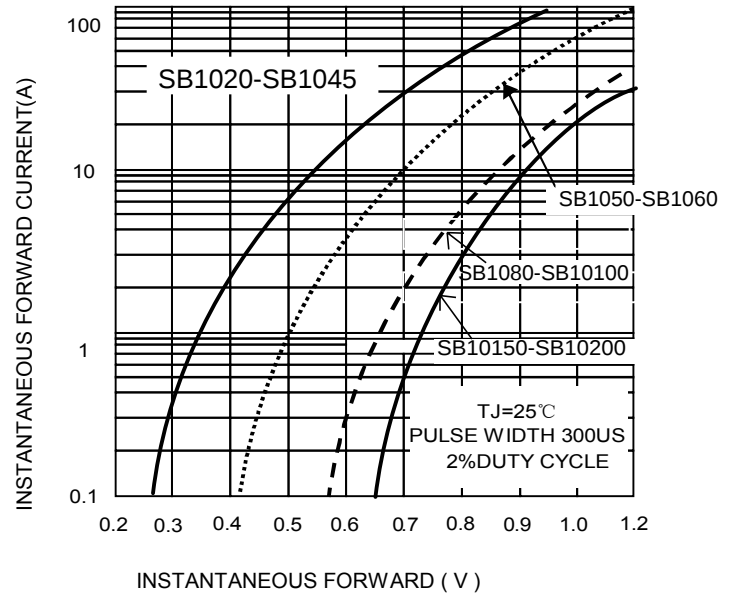


FIG.3-MAXIMUM NON-REPETITIVE SURGE

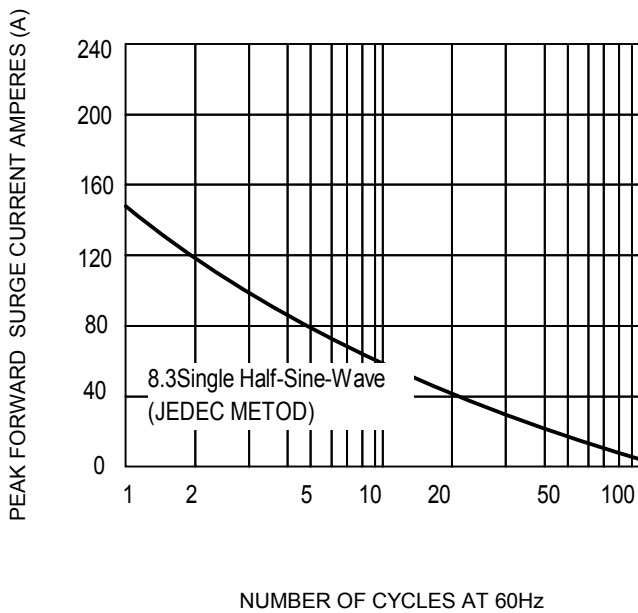
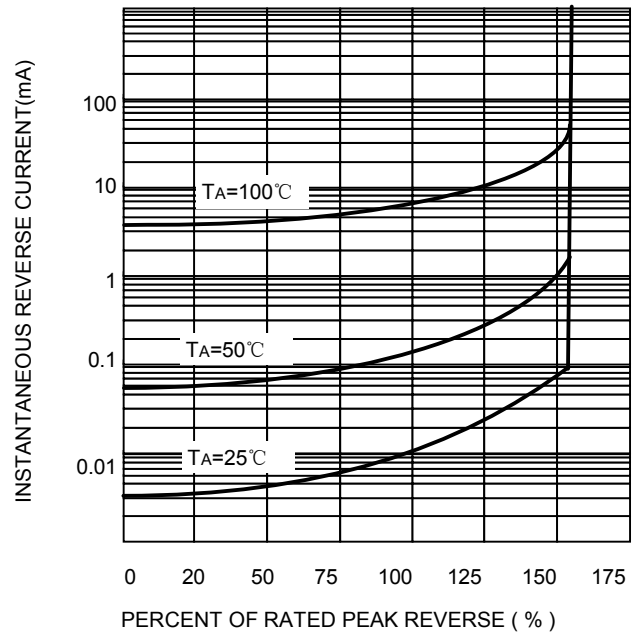
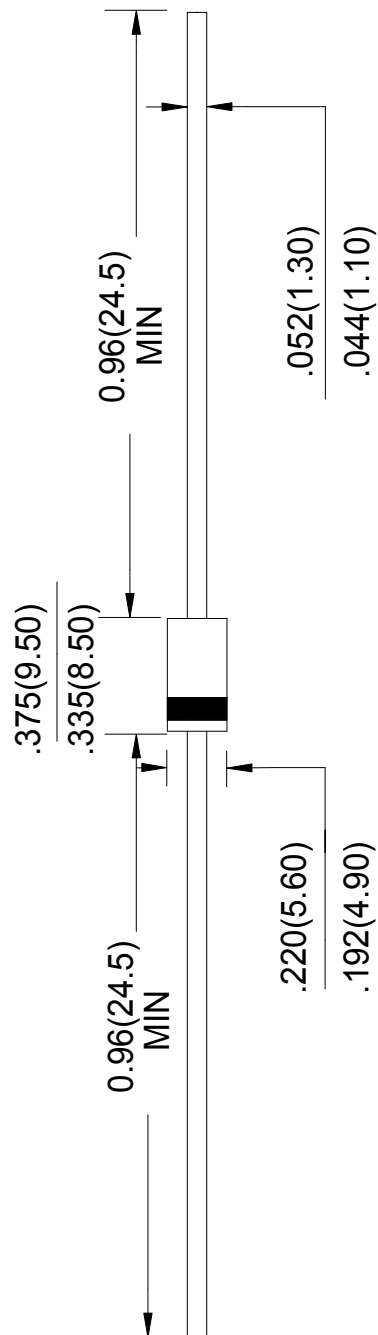


FIG.4-TYPICAL REVERSE CHARACTERISTICS





Unit: in inches (millimeters)