

SCHOTTKY RECTIFIER DIODES

VOLTAGE 20 to 100 Volt CURRENT 5 Ampere

Features

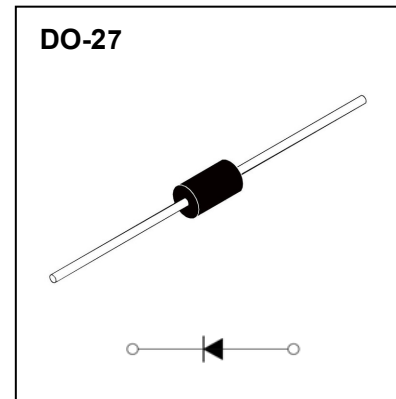
- $I_{F(AV)}$ 5A
- V_{RRM} 20V-100V
- High surge current capability
- Polarity: Color band denotes cathode
- AEC-Q101 qualified (Automotive grade with suffix "Q".)

Applications

- Rectifier

Marking

- SB5XX X : From 20 To 100



Limiting Values (Absolute Maximum Rating)

Type Number	Symbol	Unit	Conditions	SB5						
				20	30	40	50	60	80	100
Repetitive Peak Reverse Voltage	V_{RRM}	V		20	30	40	50	60	80	100
Maximum RMS Voltage	V_{RMS}	V		14	21	28	35	42	56	70
Maximum DC Blocking Voltage	V_{DC}	V		20	30	40	50	60	80	100
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, TL(Fig.1)	5.0						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	150						
Junction Temperature	T_J	$^\circ\text{C}$		-55 ~ +125			-55 ~ +150			
Storage Temperature	T_{STG}	$^\circ\text{C}$		-55 ~ +150						

Electrical Characteristics (T=25°C Unless otherwise specified)

Type Number	Symbol	Unit	Test Condition	SB5						
				20	30	40	50	60	80	100
Maximum Peak Forward Voltage	V_{FM}	V	$I_{FM}=5.0\text{A}$	0.55		0.7			0.85	
Maximum Peak Reverse Current	I_{RRM1}	mA	$V_{RM}=V_{RRM}$	$T_a=25^\circ\text{C}$						
	I_{RRM2}			$T_a=125^\circ\text{C}$						
Typical junction capacitance	C_J	pF	Measured at 1MHz and applied reverse voltage of 4.0V D.C.	500			400			
Typical Thermal Resistance	$R_{\theta J-A}$	$^\circ\text{C/W}$	Between junction and ambient	25						
	$R_{\theta J-L}$		Between junction and lead	5						

Notes:

1) Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length,P.C.B. mounted

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

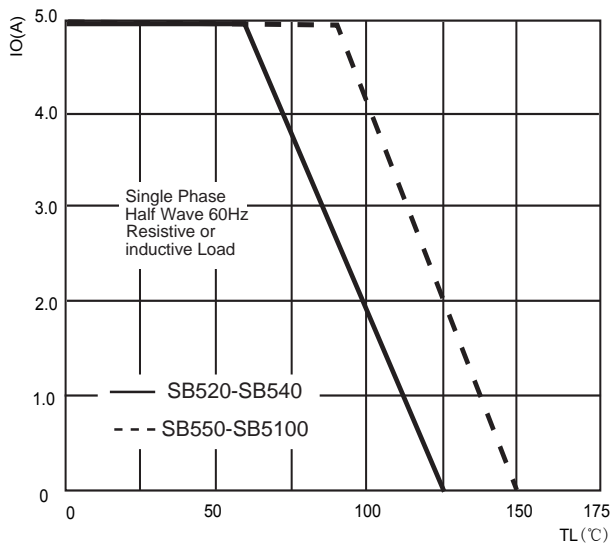


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

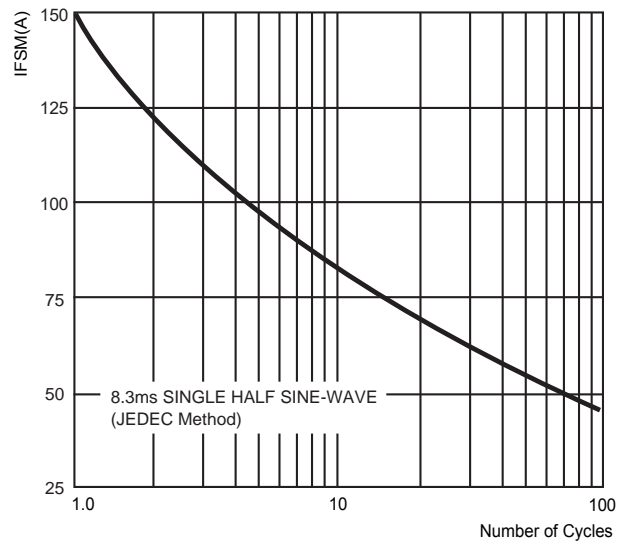


FIG.3: TYPICAL FORWARD CHARACTERISTICS

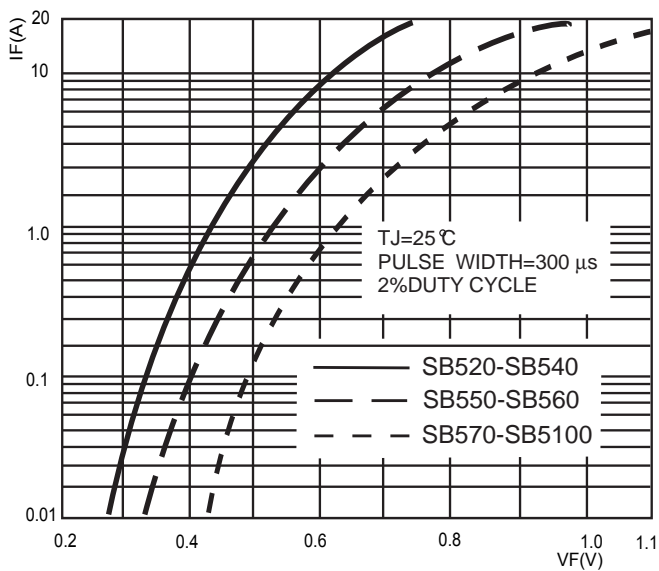
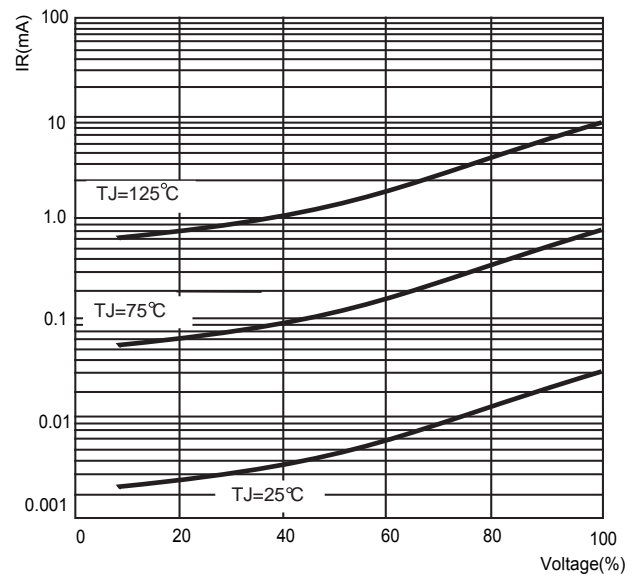
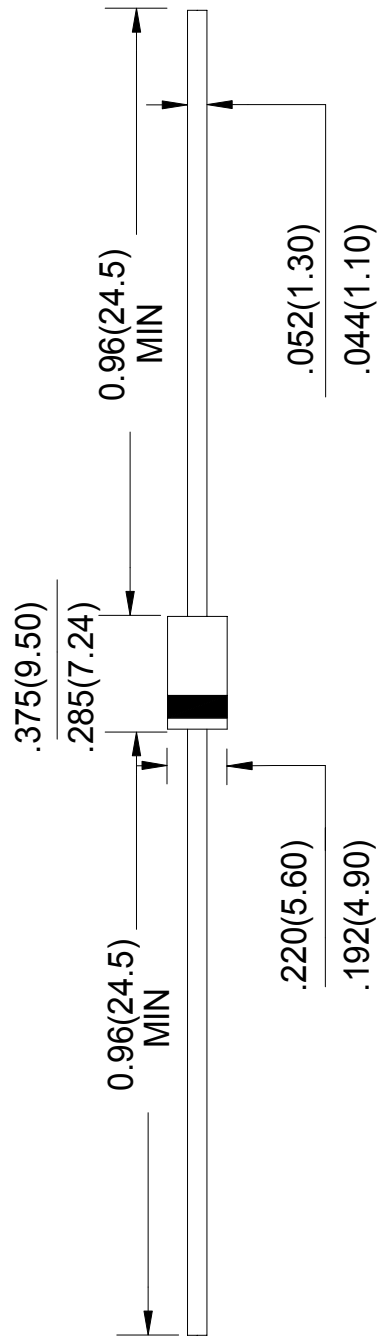


FIG.4: TYPICAL REVERSE CHARACTERISTICS



DO-27 Package Outline Dimensions



Unit: in inches (millimeters)