

SB520L/SR520L~SB5100L/SR5100L 5.0Amp Schottky Barrier Rectifiers

Features

- ◆ Low forward voltage drop
- ◆ Low power loss,high efficiency
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250°C/10 seconds,0.375"(9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

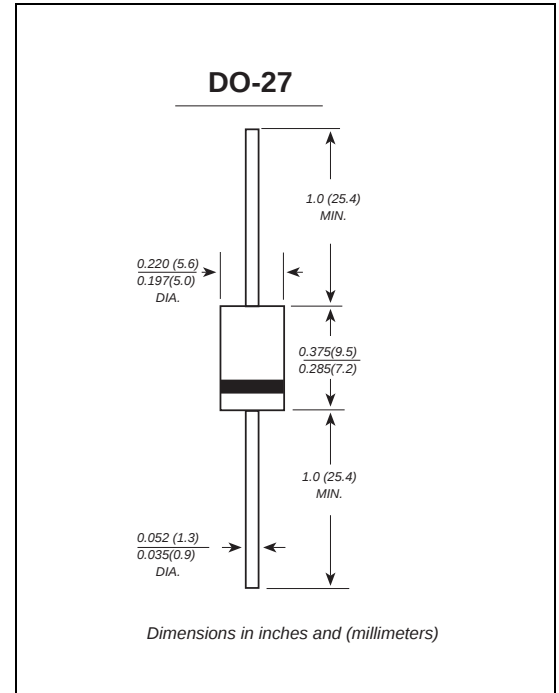
Case: JEDEC DO-27 molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight : 0.04 ounce, 1.10 grams



Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz,resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	SR 520L SB 520L	SR 540L SB 540L	SR 560L SB 560L	SR 5100L SB 5100L	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	100	VOLTS
Maximum RMS voltage	V_{RMS}	14	28	42	70	VOLTS
Maximum DC blocking voltage	V_{DC}	20	40	60	100	VOLTS
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	$I_{(AV)}$	5.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120				Amps
Maximum instantaneous forward voltage at 5.0A	V_F	0.40	0.45	0.55	0.70	Volts
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=100^{\circ}C$	I_R	1.0			0.5	mA
		50.0			20.0	
Typical junction capacitance (NOTE 1)	C_J	380				pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	10				$^{\circ}C/W$
Operating junction temperature range	T_J	-50 to +125				$^{\circ}C$

Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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

Ratings And Characteristic Curves

SB520L/SR520L~SB5100L/SR5100L

FIG. 1- FORWARD CURRENT DERATING CURVE

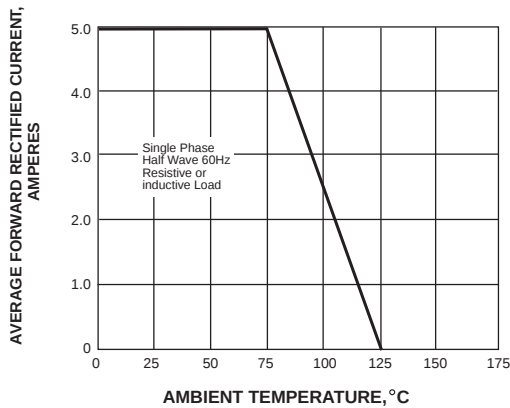


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

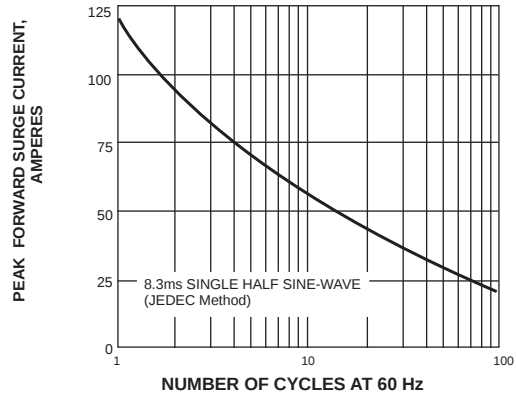


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

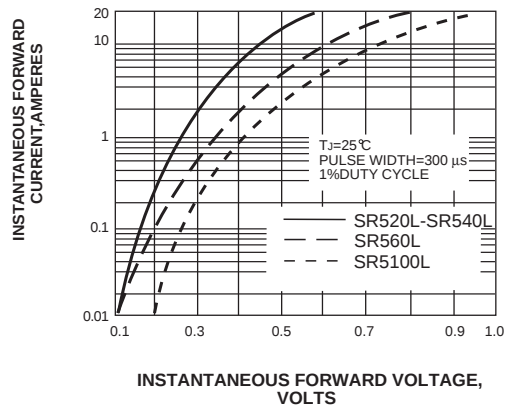


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

