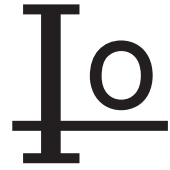


# SR540L

## LOW VF SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 40 Volts

Forward Current - 5.0Amperes



### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260 C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

### MECHANICAL DATA

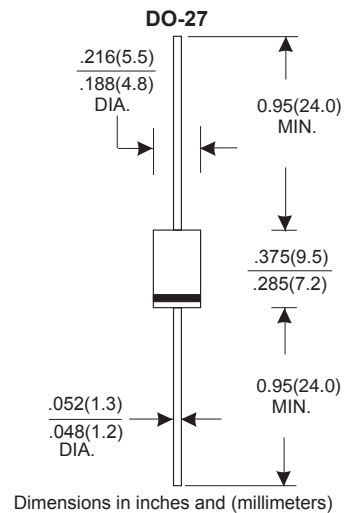
- Case: JEDEC DO-27 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any
- \* Weight: 1.10 grams
- \*Lead Free Finish/RoHS Compliant

### VOLTAGE RANGE

40 Volts

### CURRENT

5.0 Amperes



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

	Symbols	SR 540L	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	40	Volts
Maximum RMS voltage	V <sub>RMS</sub>	28	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	40	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	I <sub(av)< sub=""></sub(av)<>	5.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T <sub>J</sub> )	I <sub>FSM</sub>	120	Amps
Maximum instantaneous forward voltage at 5.0 A(Note 1 )	V <sub>F</sub>	0.45	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I <sub>R</sub>	T <sub>a</sub> = 25°C	1.0
		T <sub>a</sub> = 100°C	30
Typical junction capacitance(Note 3)	C <sub>J</sub>	500	pF
Typical thermal resistance (Note 2)	R <sub>θJA</sub>	25.0	°C/W
	R <sub>θJL</sub>	8.0	
Operating junction temperature range	T <sub>J</sub>	-65 to+ 150	°C
Storage temperature range	T <sub>STG</sub>	-65 to+ 150	°C

Notes: 1.Pulse test: 300μ s pulse width,1% duty cycle

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

3.Measured at 1MHz and reverse voltage of 4.0 volts

## RATING AND CHARACTERISTIC CURVES (SR540L)

FIG.1-FORWARD CURRENT DERATING CURVE

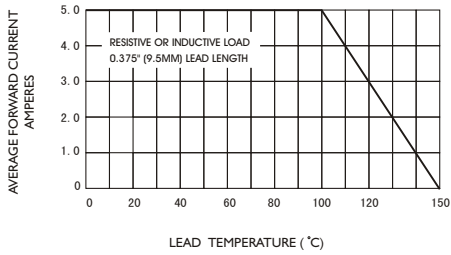


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

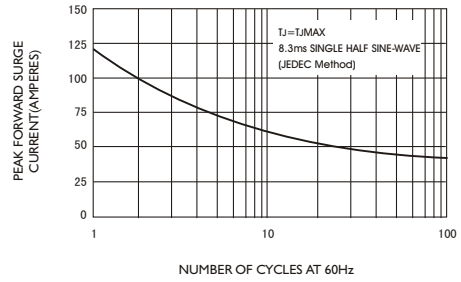


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

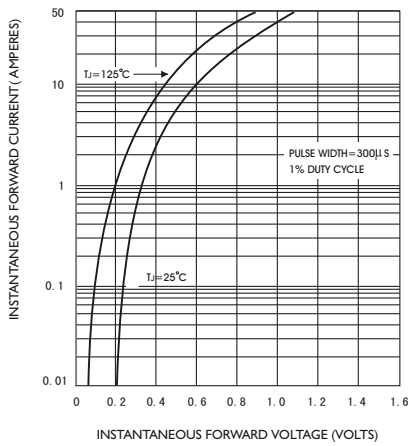


FIG.4-TYPICAL REVERSE CHARACTERISTICS

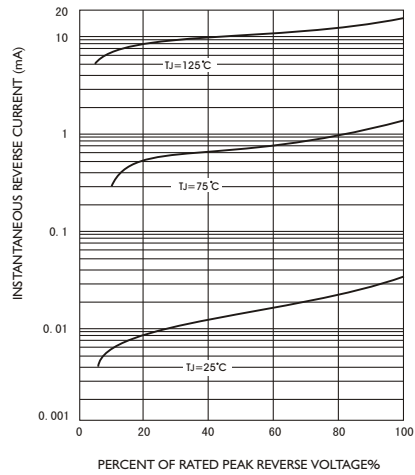


FIG.5-TYPICAL JUNCTION CAPACITANCE

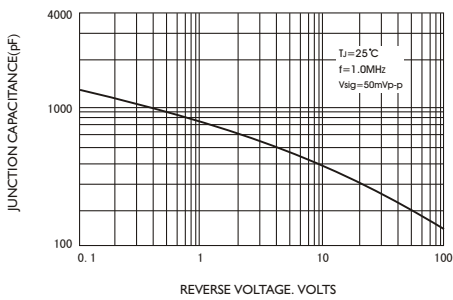


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

