



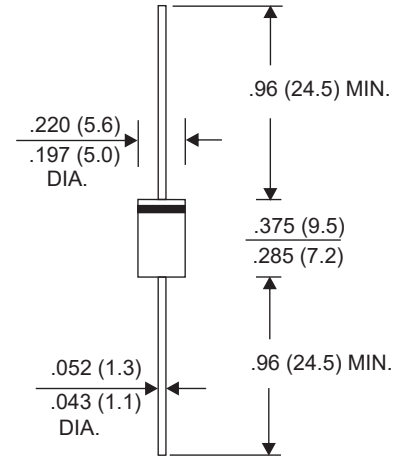
Schottky Barrier Rectifier

SR10L45D-PGB 45V 10.0A

DO-27(DO-201AD)

Features And Mechanical Data

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for over voltage 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:260°C MAX at 10 seconds, per JESD 22-B106 or MIL-STD-750,method 2026
- Case: JEDEC D0-27(D0-201AD) molded plastic body



Dimensions in inches and (millimeters)

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, derate current by 20%.

Type Numbe	Symbols	SR10L45D-MGB-L	Units			
Device Marking		SR10L45D				
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	Volts			
Maximum RMS Voltage	V_{RMS}	31.5	Volts			
Maximum DC Blocking Voltage	V_{DC}	45	Volts			
Maximum average forward rectified current (see Fig.1)	$I_{(AV)}$	10.0	Amp			
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load per diode	I_{FSM}	125	Amp			
Maximum instantaneous forward voltage at $I_{(AV)}$ (Note 1)	V_F	1A@ $T_J=25^\circ C$	Min	Typ	Max	Volts
		2A@ $T_J=25^\circ C$	-	0.37	-	
		3A@ $T_J=25^\circ C$	-	0.40	-	
		5A@ $T_J=25^\circ C$	-	0.42	-	
		10A@ $T_J=25^\circ C$	-	0.45	0.48	
		1A@ $T_J=105^\circ C$	-	0.51	0.53	
		2A@ $T_J=105^\circ C$	-	0.29	-	
		3A@ $T_J=105^\circ C$	-	0.36	-	
		5A@ $T_J=105^\circ C$	-	0.38	-	
		10A@ $T_J=105^\circ C$	-	0.40	-	
			-	0.48	-	
Maximum Reverse Current at Rated DC Blocking Voltage(Note 2)	I_R	$T_J=25^\circ C$	-	70	120	uAmp
		$T_J=105^\circ C$	-	-	40	mAmp
Thermal resistance from junction to ambient	$R_{\theta JA}$	25				°C/W
Operating Temperature Range	T_J	-65 to +150				°C
Storage Temperature Range	T_{STG}	-65 to +150				°C

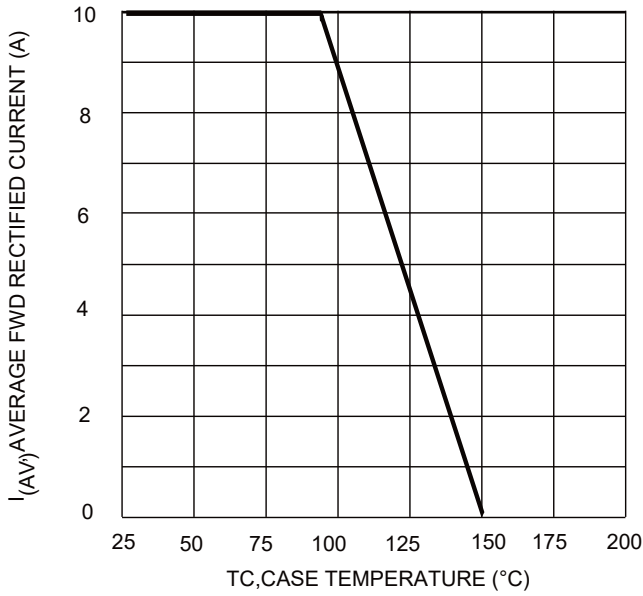
NOTES:

1. Pulse test: 300 μs pulse width, 1% duty cycle
2. Pulse test: Pulse width ≤ 40 ms

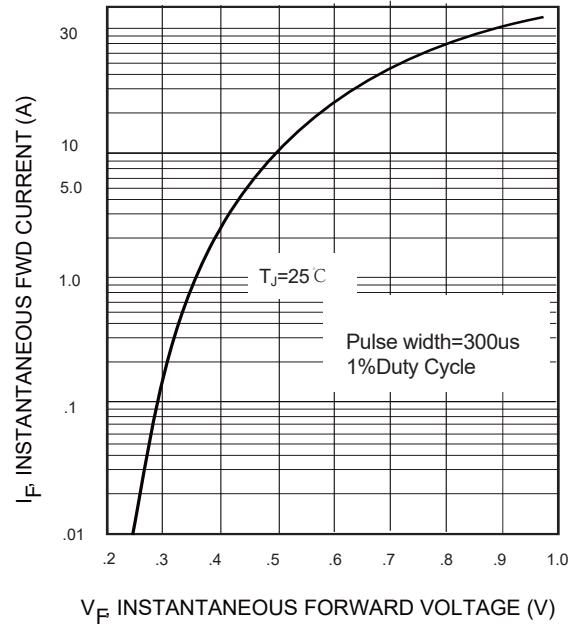


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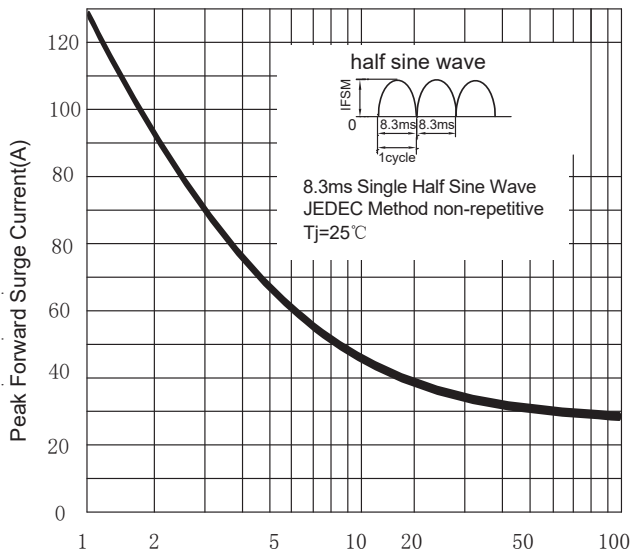
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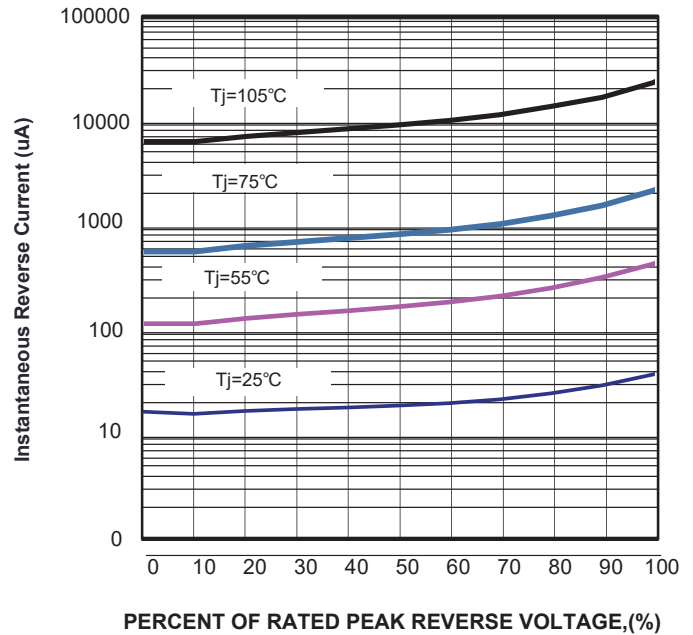
TC, CASE TEMPERATURE (°C)
Fig. 1 Forward Derating Curve



V_F INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 50 Hz
Fig. 3 Peak Forward Surge Current



PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)
FIG.4-TYPICAL FORWARD CHARACTERISTICS