Low VF Schottky Barrier Rectifier

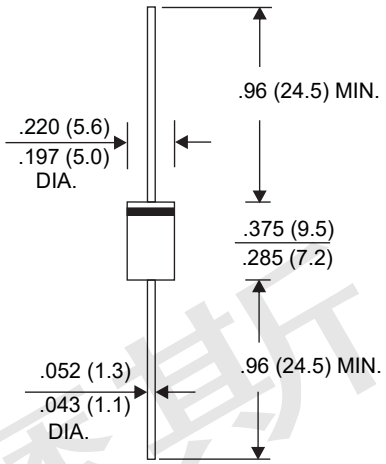
SR12L100-THB-V 100V 12.0A

RoHS COMPLIANT

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℃ 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℃ ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter			Symbol	SR12L100/TSA12L100		Unit
Maximum repetitive peak reverse voltage			V_{RRM}	100		V
Maximum average forward rectified current			$I_{F(AV)}$	12		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load per diode			I_{FSM}	150		A
Operating junction and storage temperature range			T_J, T_{STG}	-55 to +150		°C
Typical thermal resistance per diode (Mounted on FR-4 PCB)			$R_{\Theta JC}$	22		°C/W
Instantaneous forward voltage			$V_{F(1)}$	TYP.	MAX.	V
	I_F=2A	TJ=25°C		0.41	-	
	I_F=2A	TJ=125°C		0.34	-	
	I_F=12A	TJ=25°C		0.62	-	
	I_F=12A	TJ=125°C		-	0.65	
Instantaneous reverse current per diode at rated reverse voltage		T_J=25°C	$I_{R(2)}$	20	80	uA
		T_J=125°C		-	20	mA

Notes:

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≦ 40 ms

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RATINGS AND CHARACTERISTICS CURVES

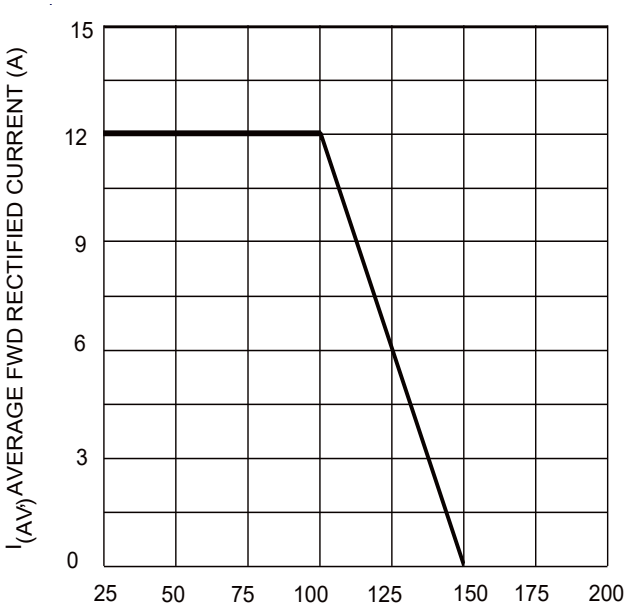


Fig. 1 Forward Derating Curve

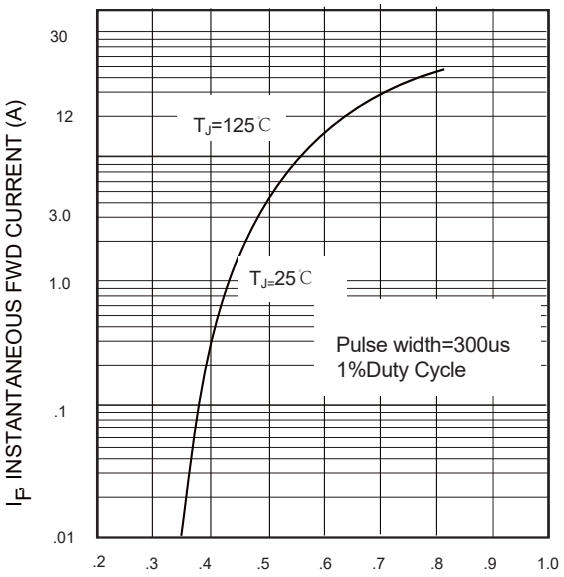


Fig. 2 Typical Forward Characteristics

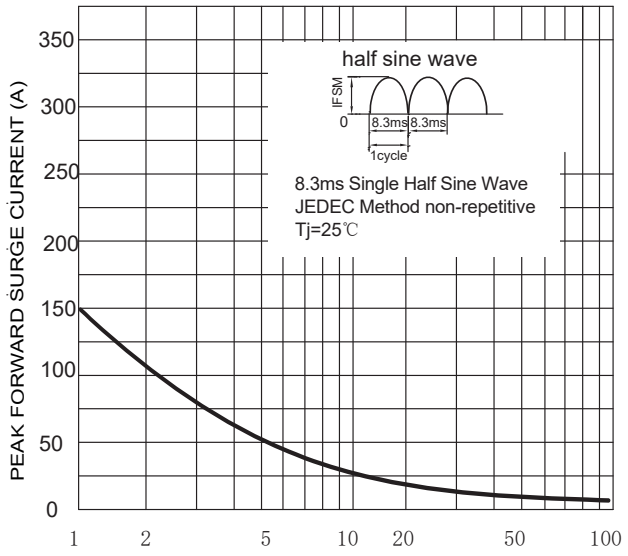


Fig. 3 Peak Forward Surge Current

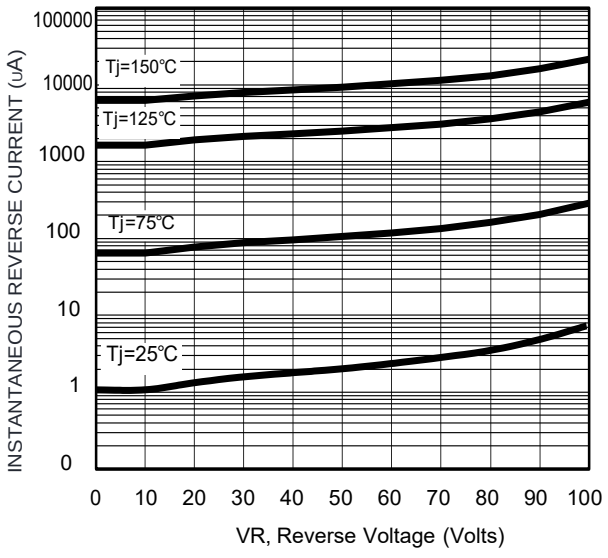


Fig.4-Typical Forward Characteristics