

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

# REVERSE VOLTAGE - 100Volts FORWARD CURRENT - 12 Amperes

### **FEATURES**

- ●Very low profile typical height of 1.1 mm
- Ideal for automated placement
- Trench Schottky technology
- Low forward voltage drop, low power losses
- High efficiency operation
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

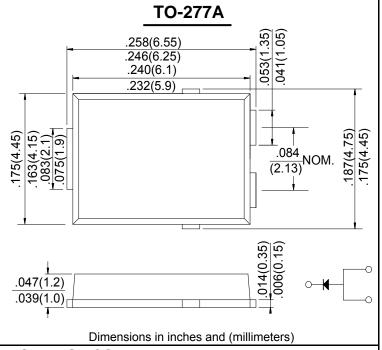
## **MECHANICAL DATA**

●Case: TO-277A

Molding compound meets UL 94 V-0 flammability rating

●Terminals: Matte tin plated leads, solderable per

J-STD-002 and JESD 22-B102



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 ℃ ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

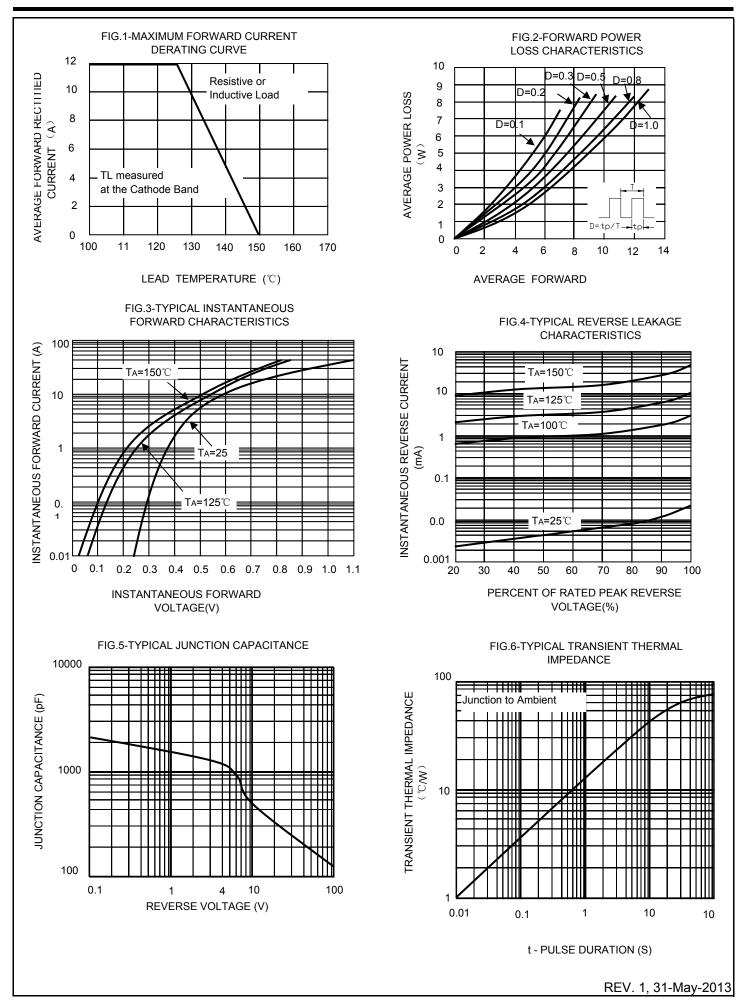
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CHARACTERISTICS			SYMBOL	S12F	S12P100	
Maximum Recurrent Peak Reverse Voltage			VRRM	100		V
Maximum RMS Voltage			VRMS	70		V
Maximum DC Blocking Voltage			VDC	100		V
Maximum Average Forward Rectified Current			I(AV)	12		Α
Peak Forward Surge Current 10ms Single Half Sine-Wave Superimposed on Rated Load			IFSM	200		А
Instantaneous Forward voltage (Note1)	IF=5.0A	T. 05°C		0.50(TYP.)		
	IF=12A	TA=25℃	VF	0.65(TYP.)	0.70 (MAX.)	.,
	IF=5.0A	IF=5.0A		0.43(TYP.)		
	IF=12A	Ta=125℃		0.58 (TYP.)	0.64 (MAX.)	
Reverse Current (Note2)	V <sub>R</sub> =70V	Ta=25℃		7.0 (TYP.)		μA
	VR=70V	Ta=125℃	- Ir	4.4(TYP.)		mA
	VR=100V	TA=25℃		22 (TYP.)	250 (MAX.)	μA
	VR=100V	Ta=125℃		12(TYP.)	20 (MAX.)	mA
Typical Thermal Resistance (Note3)			Røja	60		°C/W
			Røjl	3		C/VV
Operating Temperature Range			TJ	-55 to +150		$^{\circ}$ C
Storage Temperature Range			TSTG	-55 to +150		$^{\circ}$ C
Operating Temperature Range			TJ	-55 to +150		

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

- 2. Pulse test: Pulse width  $\leq$  40 ms
- 3. Units mounted on recommended PCB 1 oz. pad layout

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