

HY ELECTRONIC (CAYMAN) LIMITED

www.hygroup.com.tw Low VF=Low VF=0.49V at IF=6A

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE 100 FORWARD CURRENT 12

Volts Amperes

FEATURES

- ■Very low profile typical hight of 1.1mm
- Ideal for automated placement
- Trench Schottky Technology
- High current capability, low VF
- High efficiency operation
- ●Fcompliant to RoHS Directive 2002/95/EC and accordance to WEEE 2002/96/EC
- For use in low voltage,high frequency inverters,free wheeling,switching power supplies, DC-DC converter,and polarity protection applications

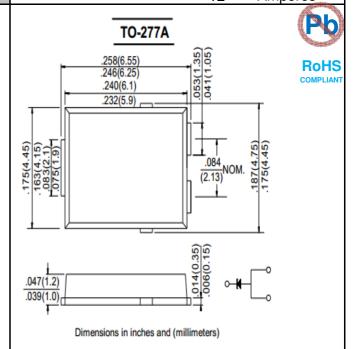
MECHANICAL DATA

●Case: TO-277A (SMPC)

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°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

MAXIMUM I	RATINGS $(T_A = 25)$	°C unless otherwise noted)		
CHARACTERISTICS		HTS12L	HTS12L100	
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 (See Fig	g.1) I(AV)	12		А
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load	IFSM	100		А
Peak repetitive reverse current at tp = 2 μs, 1 kHz	I _{RRM}	1		А
Operating Temperature Range	TJ	-55 to +150		°C
Storage Temperature Range	Тѕтс	-55 to +175		°C
ELECTRICAL CHA	RACTERISTICS (T _A = 25 °C unless otherwise	noted)	
PARAMETER / CONDITIONS	SYMBOL	Тур	Max	UNIT
Breakdown voltage per diode	V_{BR}	100 (minimun)	-	V
Forward Voltage (Note1) IF=6A @T IF=6A @T IF=12A @T	J=125°C TJ=25°C V _F	0.54 0.49 0.66 0.61	0.59 0.52 0.75 0.66	V
Maximum DC Reverse Current @TJ=25℃ at Rated DC Bolcking Voltage @TJ=125℃	lr	168 40		uA mA
Typical Junction Capacitance (Note2)	CJ	621		pF
THERMAL CHAR	ACTERISTICS (T	A = 25 °C unless otherwise n	oted)	
PARAMETER	SYMBOL	Typ HTS12L100		UNIT
Thermal Resistance Per Diode (Note3)	RθJL	4.0		°C/W
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NOTES:1.300us pulse width,2% duty cycle.

- 2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
- 3. Thermal resistance junction to case.

HTS12L100-13-00-M001



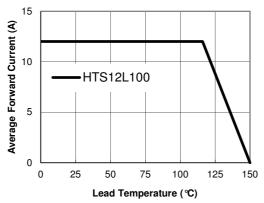


Figure 1. Forward Current Derating Curve

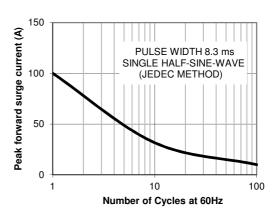
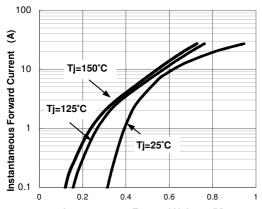


Figure 2. Maximum NON-Repetitive



Instantaneous Forward Voltage (V) Figure 3. Typical Instantaneous Forward Characteristics Per Leg

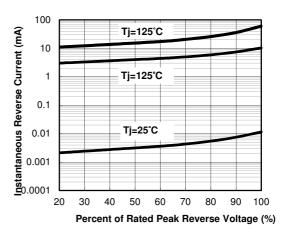
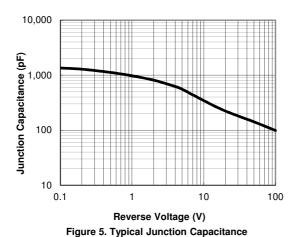


Figure 4. Typical Reverse Characteristics



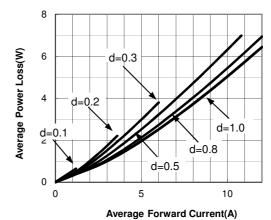


Figure 6. Forward Power Loss Characteristics

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