



PFC Device Corporation

PT8L100SP

8A 100V HPTR[®] Schottky Rectifier

Major ratings and characteristics

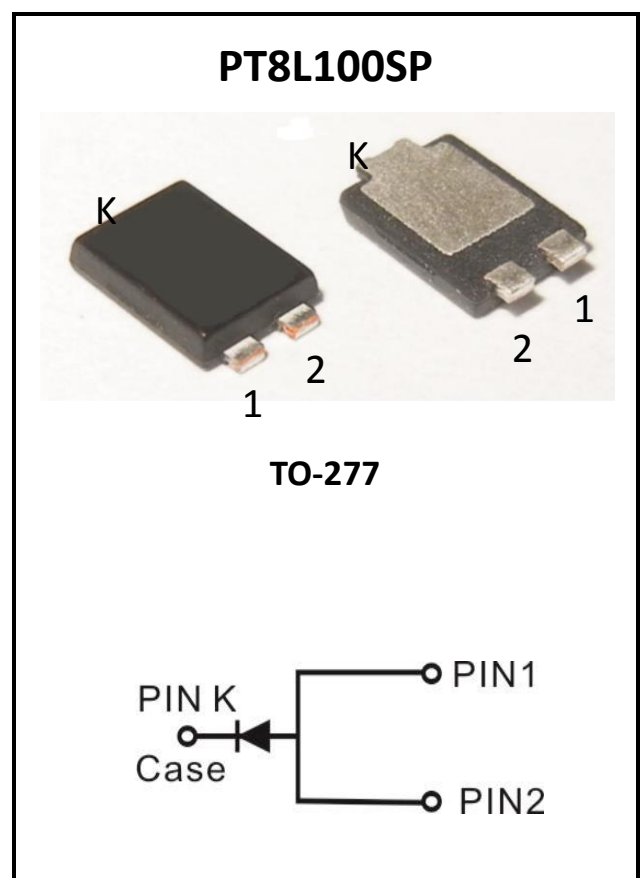
Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	8	A
V_{RRM}	100	V
$V_F@ 8A, T_J=125^\circ C$	0.62	V, typ.
T_J Operating Junction Temperature	-40 to +150	$^\circ C$

Features

- Super Low Forward Voltage (SLVF[®]) Drop
- Reliable High Temperature Operation
- Softest, fast switching capability
- 150 $^\circ C$ Operating Junction Temperature
- Lead Free Finish, RoHS Compliant
- Green Molding Compound (No Br, Sb)

Typical Applications

Device optimized for low forward voltage drop to maximize efficiency in Power Supply applications



1. Characteristics

Maximum Ratings Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Values	Units
DC Blocking Voltage	V_{RM}	100	Volts
Working Peak Reverse Voltage	V_{RWM}		
Peak Repetitive Reverse Voltage	V_{RRM}		
Average Rectified Forward Current Per device	I_o	8	Amps
Peak Forward Surge Current - 1/2 60hz	I_{FSM}	150	Amps
Non-repetitive avalanche energy at IAS = 2.0A, $T_J = 25^\circ\text{C}$	E_{AS}	100	mJ
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	1	Amps
Typical Thermal Resistance	$R\theta_{JL}$	3.5	$^\circ\text{C} / \text{W}$
Operating Junction Temperature	T_J	- 40 to +150	$^\circ\text{C}$
Storage Junction Temperature	T_{STG}	- 40 to +150	

Electrical Characteristics - (per leg) ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Test Conditions		Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 4 A	$T_J = 25^\circ\text{C}$	VF*	0.54	----	Volts
	IF = 8 A			0.67	0.72	
	IF = 4 A	$T_J = 125^\circ\text{C}$		0.50	----	
	IF = 8 A			0.62	0.67	
Instantaneous Reverse Current	VR=70V	$T_J = 25^\circ\text{C}$	IR*	2.0	----	μA
	VR=100V			10.0	100	μA
	VR=70V	$T_J = 125^\circ\text{C}$		2.5	----	mA
	VR=100V			4.0	10	mA

* Pulse width < 300 uS, Duty cycle < 2%



2. Characteristics Curves

Ratings and Characteristics Curves

(TA = 25°C unless otherwise specified)

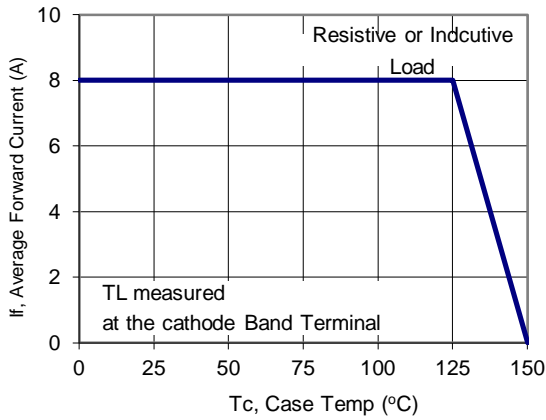


Figure 1: Current Derating, Case

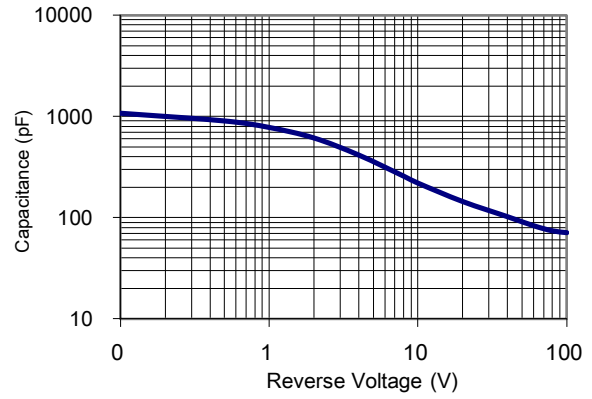


Figure 2: Typical Junction Capacitance

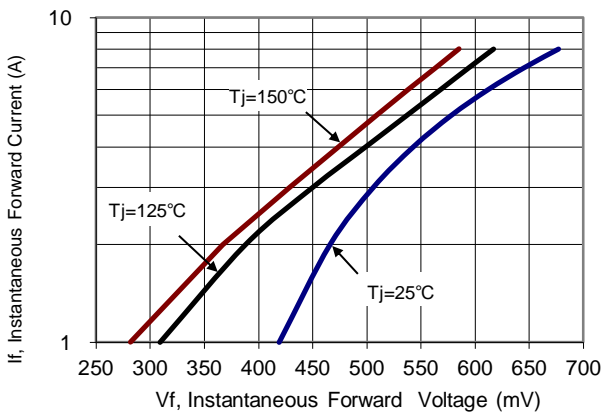


Figure 3: Typical Forward Voltage

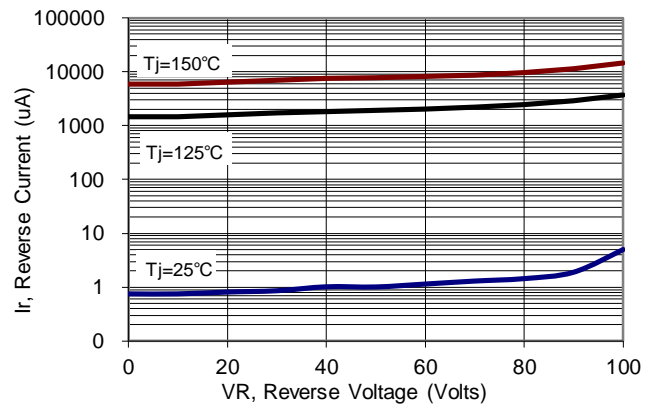
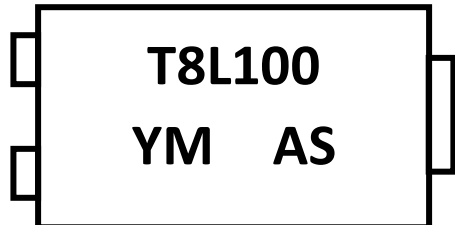


Figure 4: Typical Reverse Current



3. Marking information

Top Marking Rule



T8L100 = Product Type Marking Code

YM = Date Code

Y = Last one digits of year

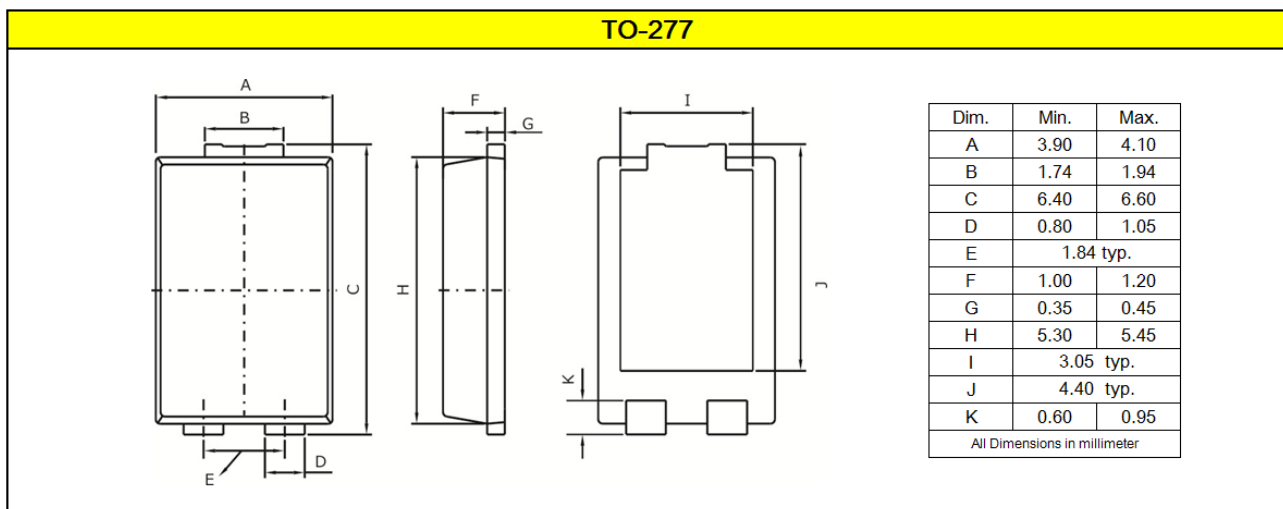
M = Month code

A = Assembly Code

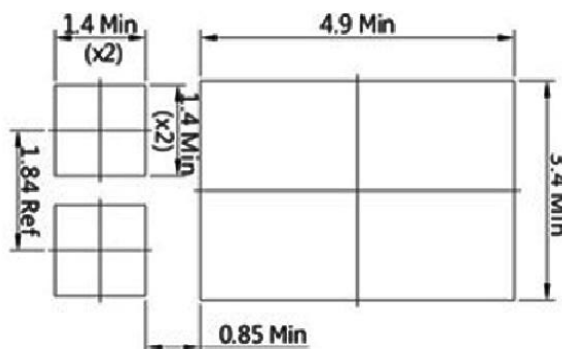
S = Series Number

4. Package information

Suggested Package Outline Dimensions millimeters

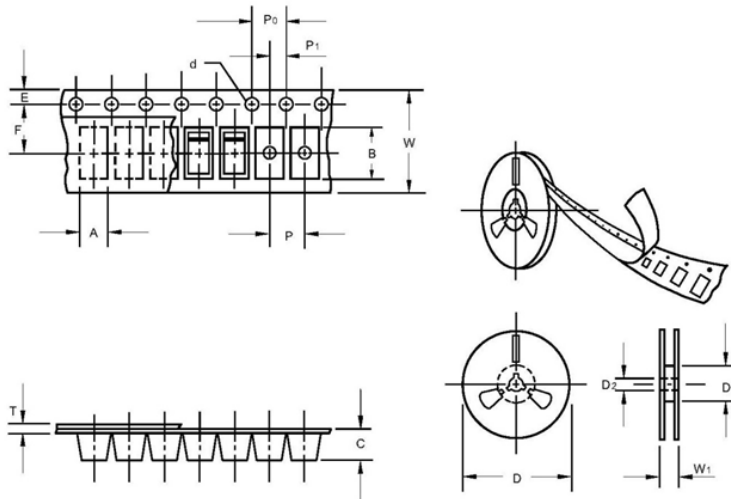


Mounting pad Outline Dimensions millimeters



5. Packing and Ordering information

Packing information millimeters



Item	Symbol	Dimension
Carrier width	A	4.4±0.10
Carrier length	B	7.0±0.10
Carrier depth	C	1.4±0.10
Sprocket hole	d	1.5±0.10
Reel outside diameter	D	330.0±1.0
Reel inner diameter	D1	75±1.0
Feed hole diameter	D2	13.5±1.0
Stocket hole position	E	1.75±0.10
Punch hole position	F	7.5±0.10
Punch hole pitch	P	8.0±0.10
Sprocket hole pitch	P0	4.0±0.10
Embossment center	P1	2.0±0.10
Total tape thickness	T	0.3±0.10
Tape width	W	16.0±0.20
Reel width	W1	22.7±1.5

Ordering information

Part Number	Package	Base Quantity	Delivery mode
PT8L100SP	TO-277	5000	13" diameter plastic tape and reel

Mechanical

- Molder Plastic: UL Flammability Classification Rating 94V-0
- Device Weight : 0.003 ounces (0.093grams) - TO-277

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