

**PS15120LT**

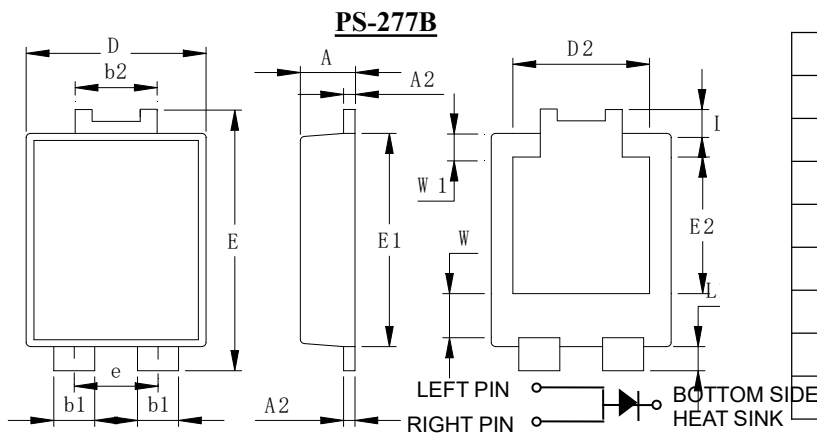
**15.0AMPS. SCHOTTKY BARRIER RECTIFIERS**

**FEATURE**

- . For surface mounted application
- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge current capability
- . High temperature soldering guaranteed:  
260°C/10 seconds at terminals.

**MECHANICAL DATA**

- . Terminal: Solder plated
- . Case: Molded with UL-94 Class V-0 recognized  
Flame Retardant Epoxy (Halogen free)
- . Weight: 0.098 grams (approximate)



NO	Dimensions	NO	Dimensions
A	1.20±0.1	e	1.84Typ
A2	0.25±0.05	E1	5.3±0.1
b1	0.9±0.1	E2	3.3±0.2
b2	1.8±0.1	L	0.6±0.1
D	3.95±0.1	L1	0.6±0.1
D2	3.00Typ	W	1.3±0.2
E	6.5±0.1	W1	0.6±0.2

All Dimensions in mm

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

For capacitive load, derate current by 20%

**MAXIMUM RATINGS** (T<sub>C</sub>=25°C unless otherwise noted)

Parameter	SYMBOL	PS15120LT	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	120	V
Maximum RMS Voltage	V <sub>RMS</sub>	84	V
Maximum DC blocking Voltage	V <sub>DC</sub>	120	V
Average Forward Rectified Current	I <sub>F(AV)</sub>	15	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	200	A
Typical Junction Capacitance (Note1)	C <sub>J</sub>	600	pF
Storage Temperature	T <sub>STG</sub>	-55 to + 150	°C
Operating Junction Temperature	T <sub>J</sub>	-55 to + 150	°C

**ELECTRICAL CHARACTERISTICS** (T<sub>C</sub>=25°C unless otherwise noted)

Parameter	SYMBOL	Min	Typ	Max	Units
Reverse Breakdown Voltage at I <sub>r</sub> =0.25mA	V <sub>BR</sub>	120	-----	-----	V
Instantaneous Forward voltage at 15A	V <sub>F</sub>	@T <sub>J</sub> =25°C	-----	0.79	0.88
		@T <sub>J</sub> =100°C	-----	-----	0.78
Instantaneous Forward voltage at 2A	V <sub>F</sub>	@T <sub>J</sub> =25°C	-----	0.44	0.50
		@T <sub>J</sub> =100°C	-----	-----	0.45
Reverse current at rated DC blocking voltage	I <sub>R</sub>	@T <sub>J</sub> =25°C	-----	0.01	0.10
		@T <sub>J</sub> =100°C	-----	2.0	10.0

**THERMAL CHARACTERISTICS**( $T_C=25^{\circ}\text{C}$  unless otherwise noted)

Parameter	SYMBOL	PS15120LT	Units
Typical Thermal Resistance (Note2)	$R_{(JA)}$	65	$^{\circ}\text{C}/\text{W}$
	$R_{(JC)}$	20	

**Note:**

- 1.Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- 2.Polyimide PCB, 2oz. Copper. Cathode pad dimensions 18.8\* 14.4\*1.6mm. Anode pad dimensions 5.6 x 14.4\*1.6mm.

**RATING AND CHARACTERISTIC CURVES**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

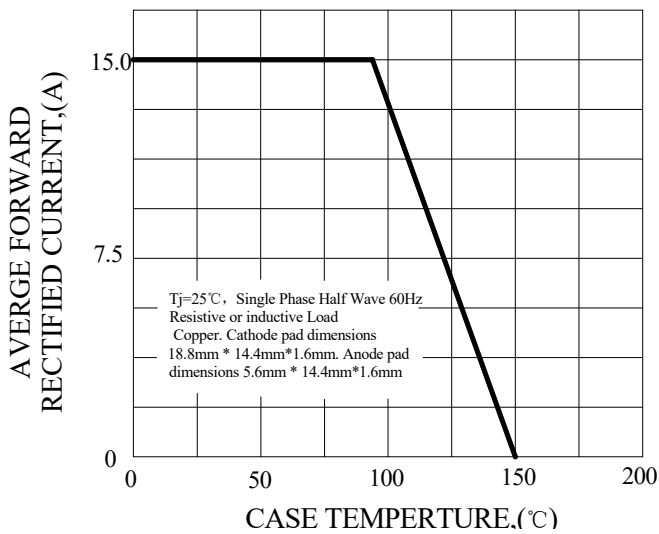


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

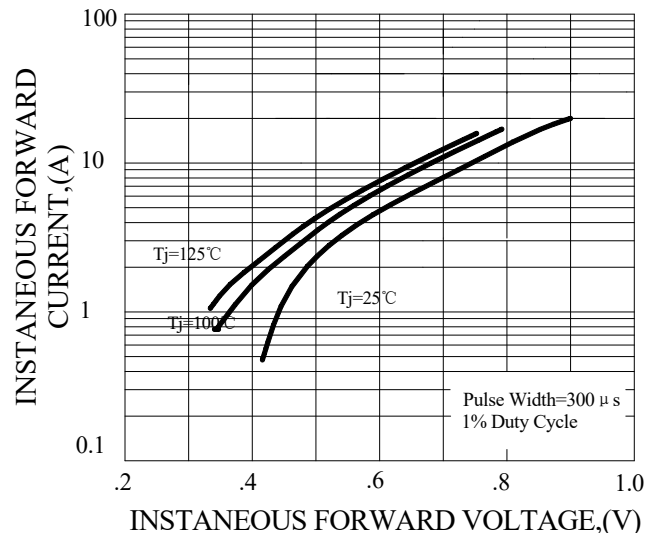


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

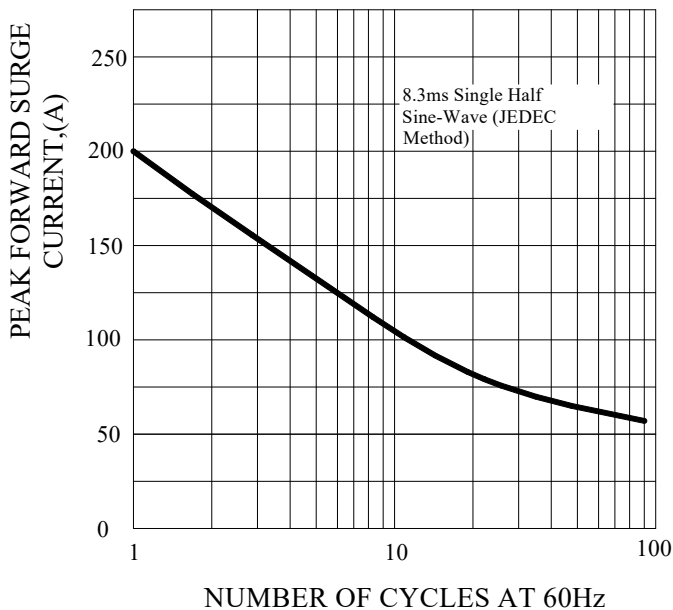
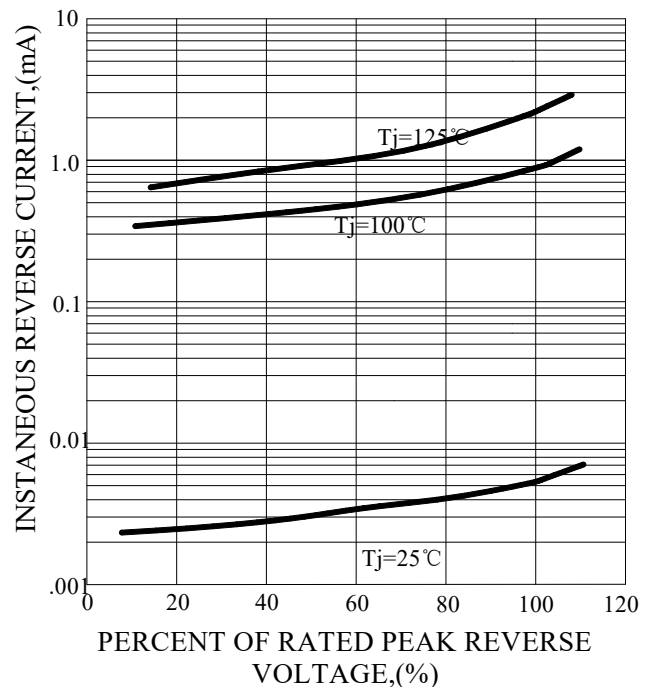
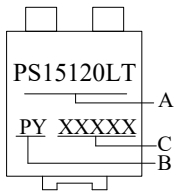


FIG.4-TYPICAL REVERSE CHARACTERISTICS



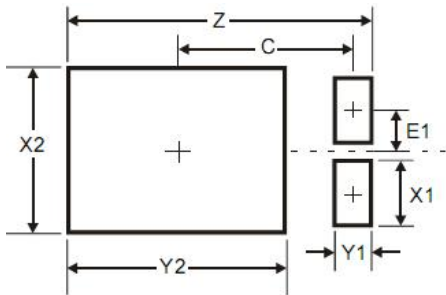
## Marking、 Pad Layout 、 MOQ and Packaging illustration

### 1、 Marking



SYMBOL	Explanation
<b>A</b>	<b>Product Name</b>
<b>B</b>	<b>Trademark</b>
<b>C</b>	<b>Date Code</b>

### 2、 Suggested Pad Layout

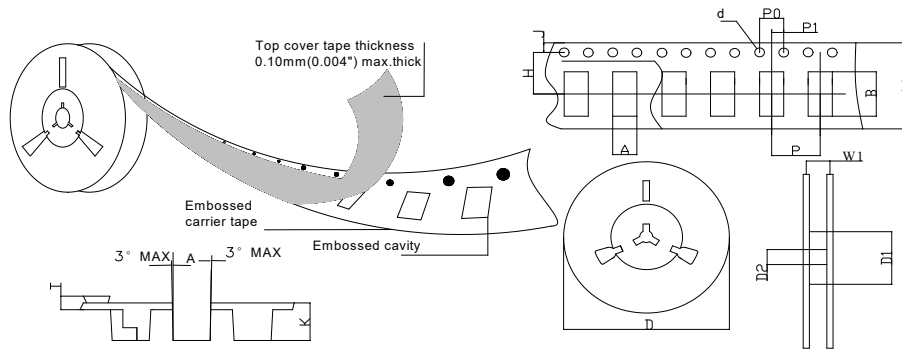


Dimensions	Value (in mm)
<b>Z</b>	<b>6.6</b>
<b>X1</b>	<b>1.4</b>
<b>X2</b>	<b>3.6</b>
<b>Y1</b>	<b>0.8</b>
<b>Y2</b>	<b>4.7</b>
<b>C</b>	<b>3.87</b>
<b>E1</b>	<b>0.9</b>

### 3、 MOQ

**3000pcs / Tape & Reel**

### 4、 Packaging



SPECIFICATIONS mm(inch)		PACKAGE	SPECIFICATIONS mm(inch)		PACKAGE
ITEM	SYM BOL	PS-277B	ITEM	SYM BOL	PS-277B
Carrier width	A	4.45(0.175)Max	Carrier depth	K	1.60(0.063)Typ
Carrier length	B	7.0(0.276)Max	Punch hole pitch	P	8.00(0.315)Typ
Sprocket hole	d	ø1.55(0.061)Typ	Sprocket hole pitch	P0	4.00(0.157)Typ
Reel outer diameter	D	330.0(13.0)Typ	Embossment center	P1	2.00(0.079)Typ
Reel inner diameter	D1	74.0(2.913)Min	Overall tape thickness	T	0.25(0.010)Typ
Feed hole diameter	D2	13.0(0.512)Typ	Tape width	W	16.0(0.630)Typ
Sprocket hole position	J	1.75(0.069)Typ	Reel width	W1	16.5(0.650)Min
Punch hole position	H	7.50(0.295)Typ			