

PS8100LT

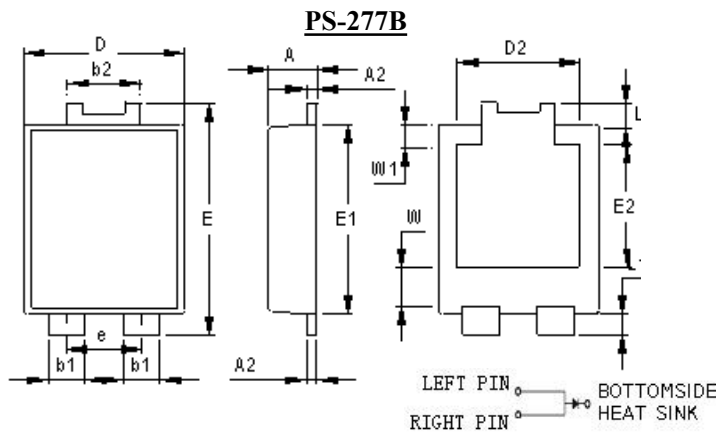
8.0AMPS. TRENCH SCHOTTKY BARRIER RECTIFIERS

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)



| 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_C=25°C unless otherwise noted)

| Parameter | Symbol | PS8100LT | Units |
|---|-----------------------------------|-------------|-------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 100 | V |
| Maximum RMS Voltage | V _{RMS} | 70 | V |
| Maximum DC blocking Voltage | V _{DC} | 100 | V |
| Average Forward Rectified Current at T _L ≤ 100°C | I _{F(AV)} | 8 | A |
| Non-repetitive forward surge current, 8.3ms Half sine-wave | I _{FSM} | 150 | A |
| Typical Junction Capacitance (Note1) | C _J | 800 | pF |
| Operation Junction Temperature and Storage Temperature | T _J , T _{STG} | -55 to +150 | °C |

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

| Parameter | Symbol | Min | Typ | Max | Units |
|--|----------------|------------------------|-------|-------|-------|
| Instantaneous Forward voltage at 10A | V _F | @T _J =25°C | 0.59 | 0.68 | V |
| | | @T _J =125°C | 0.54 | ----- | |
| reverse current at rated DC blocking voltage | I _R | @T _J =25°C | ----- | 0.1 | mA |
| | | @T _J =125°C | ----- | 20.0 | |

THERMAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

| Parameter | Symbol | PS8100LT | Units |
|------------------------------------|-------------------|----------|-------|
| Typical Thermal Resistance (Note2) | R _(JA) | 45 | °C/W |
| | R _(JC) | 15 | |

Note:

1. T_J=25°C, V_R = 4V_{DC}@1Mhz

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 (PS8100LT)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

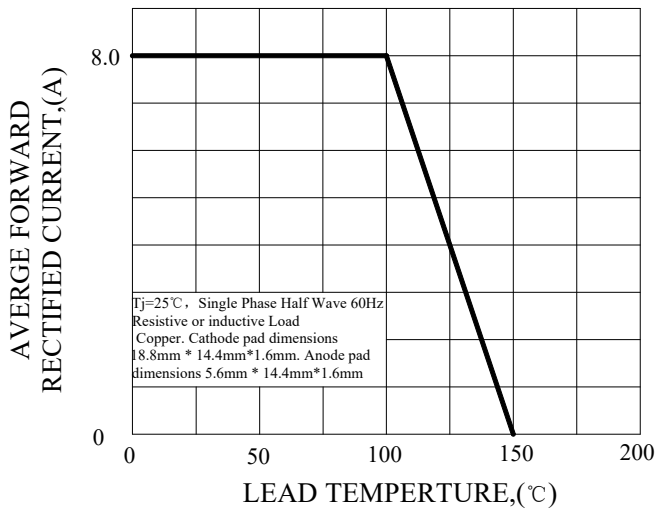


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

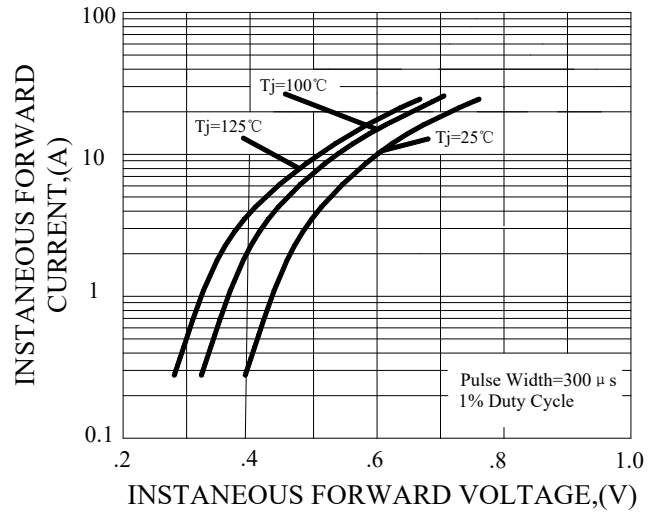


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

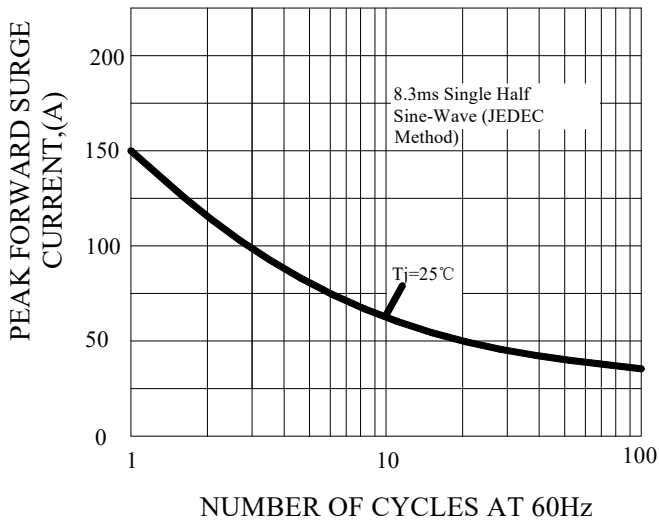


FIG.4-TYPICAL REVERSE CHARACTERISTICS

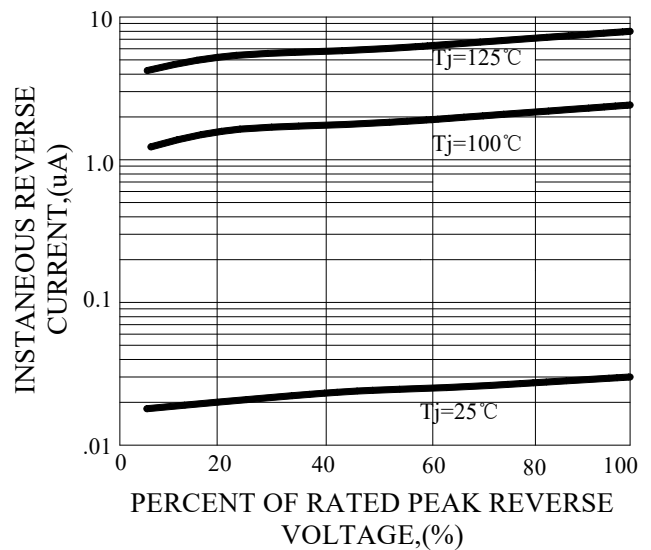
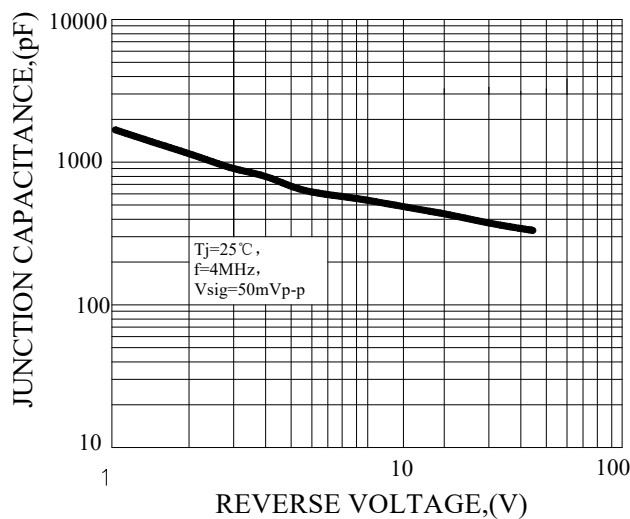
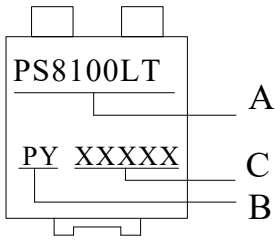


FIG.5-TYPICAL JUNCTION CAPACITANCE



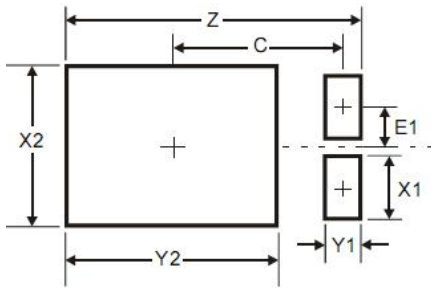
Marking、 Pad Layout 、 MOQ and Packaging illustration

1、 Marking



| SYMBOL | Explanation |
|----------|---------------------|
| A | Product Name |
| B | Trademark |
| C | Date Code |

2、 Suggested Pad Layout

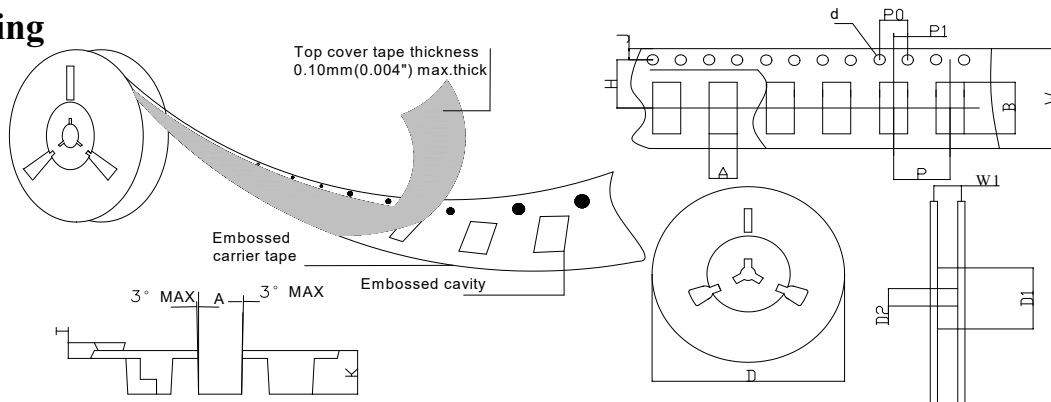


| Dimensions | Value (in mm) |
|------------|---------------|
| Z | 6.6 |
| X1 | 1.4 |
| X2 | 3.6 |
| Y1 | 0.8 |
| Y2 | 4.7 |
| C | 3.87 |
| E1 | 0.9 |

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 | | | |

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