

Special For DC-AC Rectifier Bridge



PINNING

| PIN | DESCRIPTION |
|-----|--------------------|
| 1 | Input Pin (~) |
| 2 | Input Pin (~) |
| 3 | Output Anode (+) |
| 4 | Output Cathode (-) |

Features

- Compliant with RoHS Provisions
- Low forward voltage, high forward current
- High forward surge current capability
- High heat-conducting performance
- Thermal welding performance:
260 °C/10sec

Applications

- Switching Power Supply
- Home Appliances, Office Devices
- Industrial Auto-equipments

Maximum Ratings and Electrical characteristics

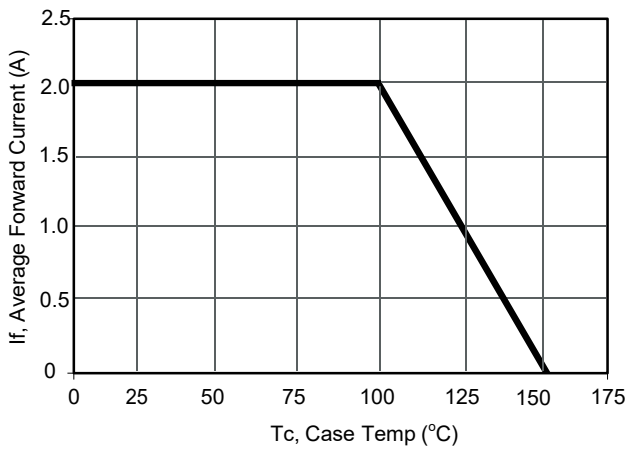
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter | Symbol | ABS206E50 | Unit |
|--|------------------------------------|------------------------|--------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 600 | V |
| Maximum RMS voltage | V_{RMS} | 420 | V |
| Maximum DC Blocking Voltage | V_{DC} | 600 | V |
| Average Rectified Output Current | I_o | 2 | A |
| Reverse Recovery Time. $I_F=0.5A, I_R=1A, I_{RR}=0.25A$ | T_{rr} | 50 | ns |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) | I_{FSM} | 50 | A |
| $I^2 t$ rating for fusing ($1ms < t < 8.3ms$) | $I^2 t$ | 10.3 | $A^2 S$ |
| Dielectric Strength: Terminals to Case, AC 1 minute | V_{dis} | 2.5 | KV |
| Mounting torque | TOR | Recommended torque:0.5 | N.m |
| Maximum Forward Voltage at 1.0 A | V_F | 1.2 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | 10 500 | μA |
| Junction to ambient , without heatsink @ $T_A=25^\circ C$ Junction to case, with heatsink @ $T_A=125^\circ C$ | $R_{\theta JA}$ $R_{\theta JC}$ | 60 16 | $^\circ C/W$ |
| Operating and Storage Temperature Range | T_j, T_{stg} | -55 ~ +150 | $^\circ C$ |

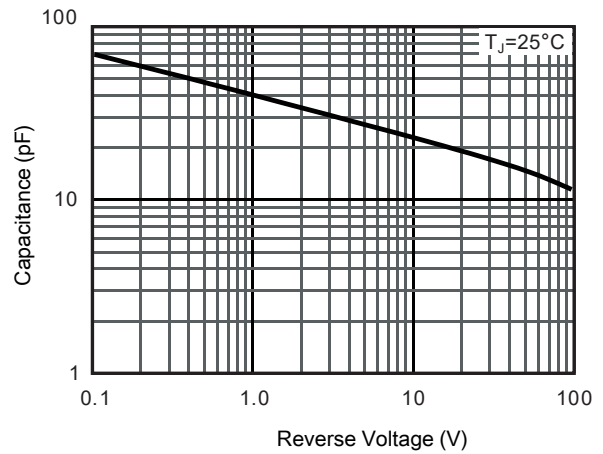
Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

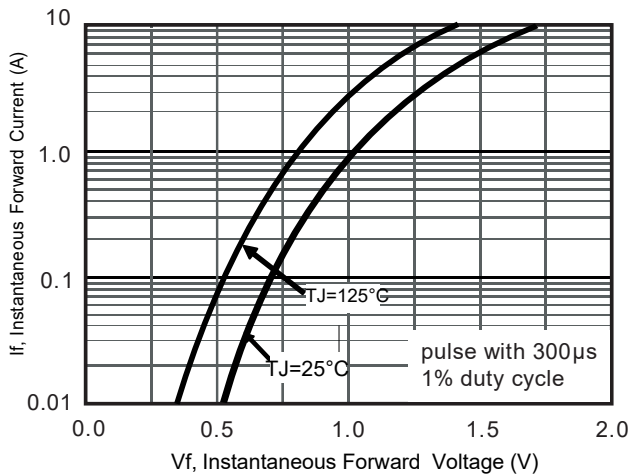
RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



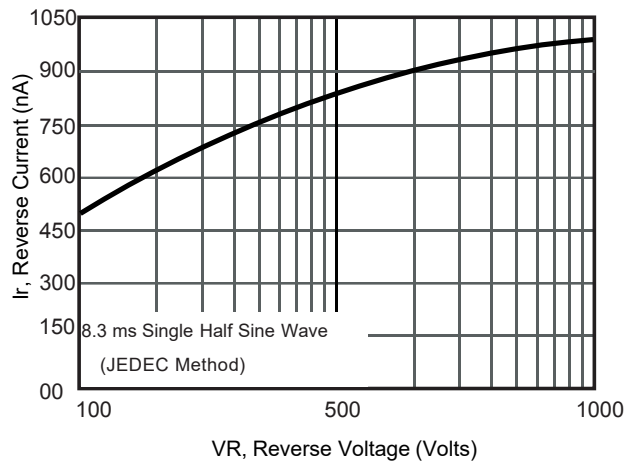
Current Derating, Case



Typical Junction Capacitance

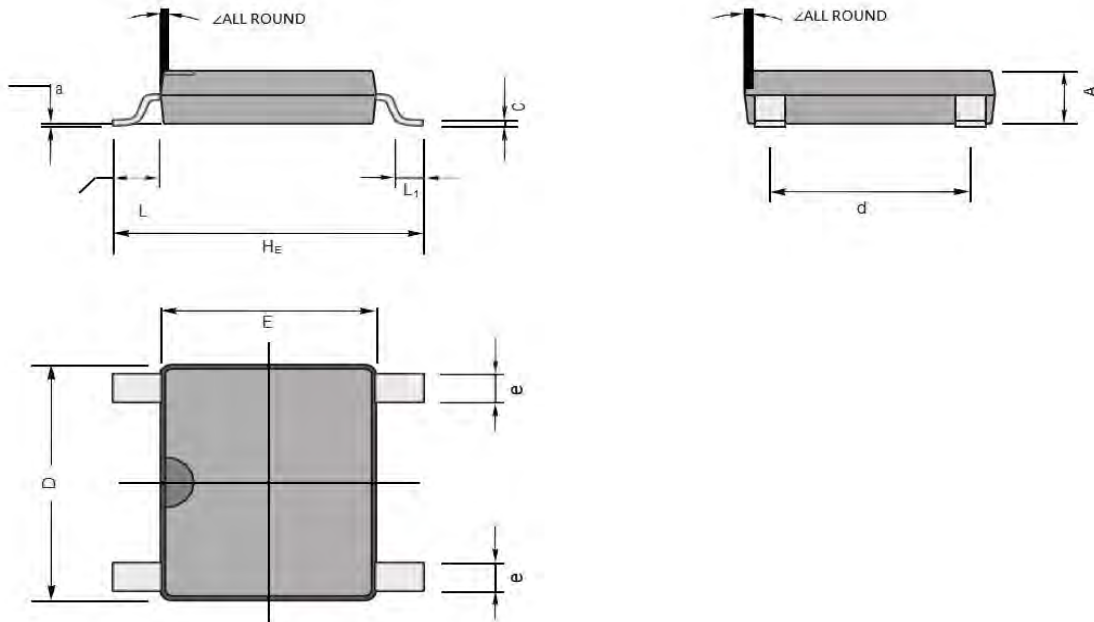


Typical Forward Voltage



Typical Reverse Current

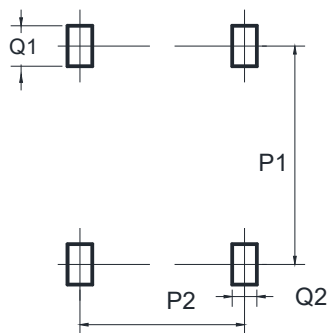
PACKAGE OUTLINE DIMENSIONS



ABS mechanical data

| UNIT | | A | C | D | E | HE | d | e | L | L ₁ | a | ∠ |
|------|-----|-------|------|-----|-----|-----|-----|-------|-------|----------------|------|----|
| mm | max | 1.5 | 0.22 | 5.2 | 4.5 | 6.4 | 4.2 | 0.7 | 0.95 | 0.6 | 0.2 | 7° |
| | min | 1.2 | 0.15 | 4.9 | 4.2 | 6.0 | 3.8 | 0.5 | | | | |
| mil | max | 59.1 | 8.66 | 205 | 177 | 252 | 165 | 27.55 | 37.40 | 23.62 | 7.87 | |
| | min | 47.23 | 5.91 | 193 | 166 | 236 | 149 | 19.68 | | | | |

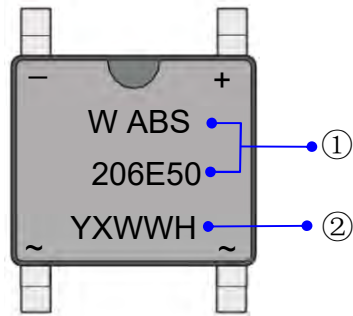
ABS Suggested Pad Layout



Dimensions is millimeters

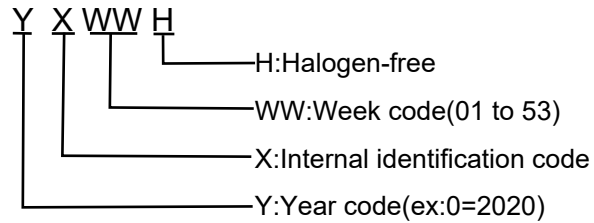
| UNIT | | P1 | P2 | Q1 | Q2 |
|------|-----|--------|--------|-------|-------|
| mm | min | 5.70 | 4.00 | 1.0 | 0.9 |
| mil | min | 224.40 | 157.48 | 39.37 | 35.43 |

Marking Information



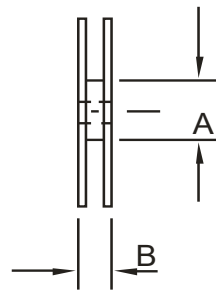
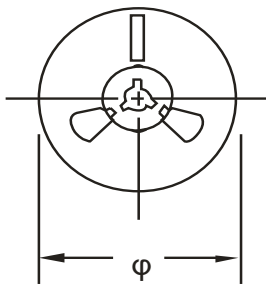
① Product model : ABS206E50

② PDC information:

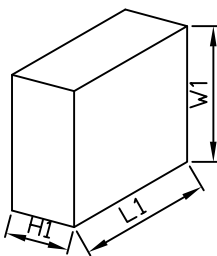


Packaging Information

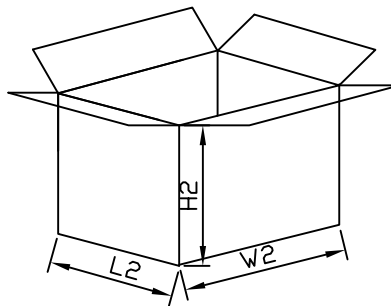
1.Reel Dimensions



2. Inside Box



3. Outside Box



Packaging Information

| NO | UNIT | Reel Dimensions | | | Inside Box | | | Outside Box | | |
|------|--|-------------------------------|-----|----|---------------------------|-----|----|----------------------------------|-----|-----|
| | | φ | A | B | L1 | W1 | H1 | L2 | W2 | H2 |
| Size | mm | 330 | 100 | 15 | 335 | 335 | 43 | 360 | 360 | 270 |
| QTY | PCS | Smallest package,5000PCS/reel | | | 10,000PCS,2 reel in total | | | 60,000PCS/carton,6boxes in total | | |
| Note | Tolerance ≤20mm,±3mm; 21-100mm,±5mm; 101-500mm,±10mm | | | | | | | | | |