

Bridge Rectifiers

Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Thin single in-line package
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

Mechanical Data

• Package: PB

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, Halogen free

- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: As marked on body

■Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMET | SYMBOL | UNIT | PB3510H | |
|---|-----------------------------|------------------|---------|------------|
| FANAMETER | | STMBOL | ONIT | P B351011 |
| Device marking code | | | | PB3510H |
| Maximum Repetitive Peak Reverse Voltage | | VRRM | V | 1600 |
| Maximum RMS Voltage | | VRMS | V | 1120 |
| Maximum DC blocking Voltage | Maximum DC blocking Voltage | | V | 1600 |
| Average rectified output current | With heatsink Tc =100℃ | l _o | А | 35.0 |
| @60Hz sine wave, R-load | Without heatsink Ta =25℃ | 10 | | 4.2 |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25°C | | I _{FSM} | A | 400 |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C | | | | 800 |
| Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode | | l²t | A²s | 664 |
| Storage temperature | | T _{stg} | °C | -55 ~ +150 |
| Junction temperature | | Тј | °C | -55 ~ +150 |
| Dielectric strength @ Terminals to case, AC 1 minute | | Vdis | κv | 2.5 |
| Mounting torque @Recommend torque: 5kg ⋅ cm | | Tor | kg∙cm | 8 |

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | PB3510H |
|---|--------|------|---|---------|
| Maximum instantaneous forward voltage drop per diode | VF | V | IFM=17.5A | 1.1 |
| Maximum DC reverse current at rated DC blocking voltage per diode | IR | μA | Тј =25°С | 5 |
| | | | Tj =125℃ | 200 |
| Typical junction capacitance | Cj | pF | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 150 |



■Thermal Characteristics (Ta=25°C Unless otherwise specified)

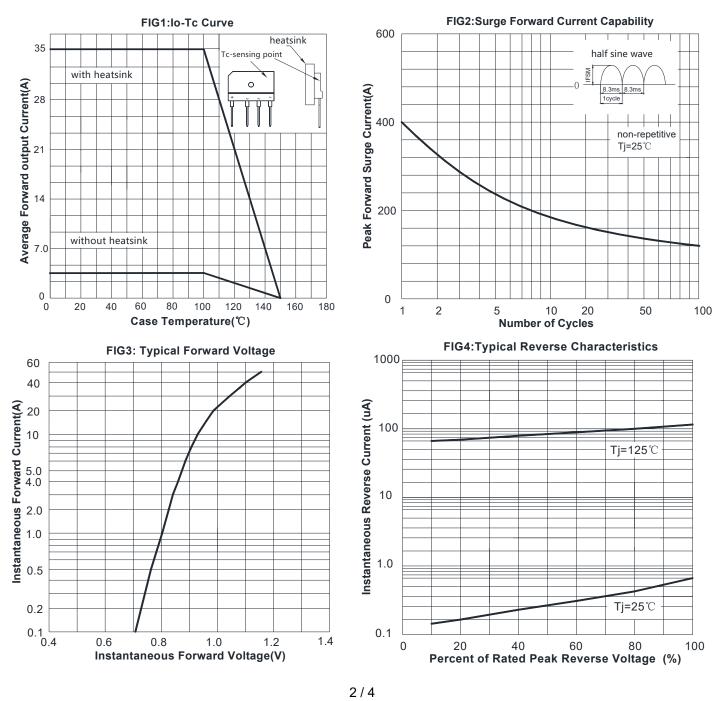
| PARAMETER | | SYMBOL UNIT | | PB3510H |
|-----------------|---|------------------------|------|---------|
| Typical Thermal | Between junction and ambient, Without heatsink | $R_{	extsf{	heta}J-A}$ | °C/W | 15 |
| Resistance | Between junction and case, With heatsink | $R_{	heta J-C}$ | C/VV | 0.8 |

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

Ordering Information (Example)

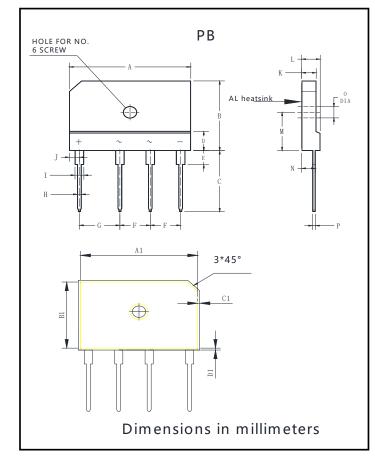
| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|--------------|-----------------|-----------------|--------------------------|----------------------------|-------------------------------|---------------|
| PB3510H | B1 | Approximate 7.5 | 15 | 750 | 1500 | TUBE |

Characteristics (Typical)





Outline Dimensions



| PB | | | | | |
|-----|-------|-------|--|--|--|
| Dim | Min | Max | | | |
| А | 29.7 | 30.3 | | | |
| В | 19.7 | 20.3 | | | |
| С | 17.0 | 18.0 | | | |
| D | 4.8 | 5.8 | | | |
| E | 3.8 | 4.2 | | | |
| F | 7.3 | 7.7 | | | |
| G | 9.8 | 10.2 | | | |
| Н | 0.9 | 1.1 | | | |
| I | 2.0 | 2.4 | | | |
| J | 2.3 | 2.7 | | | |
| К | 3.4 | 3.8 | | | |
| L | 4.4 | 4.8 | | | |
| М | 10.8 | 11.2 | | | |
| Ν | 3.1 | 3.7 | | | |
| 0 | 3.1 | 3.4 | | | |
| Р | 0.6 | 0.8 | | | |
| A1 | 28.75 | 29.15 | | | |
| B1 | 18.75 | 19.15 | | | |
| C1 | 0.3 | 0.7 | | | |
| D1 | 0.3 | 0.7 | | | |

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PB3510H

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