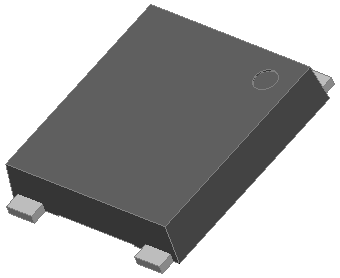
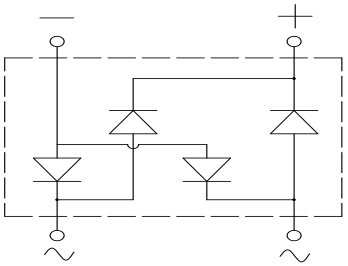
# Bridge Rectifiers





## Features

- Glass passivated chip junction
- Ideal for automated placement
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

## Typical Applications

General purpose use in AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

## Mechanical Data

- **Package**: YBS
  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 ($T_a$=25℃ Unless otherwise specified）

| PARAMETER | SYMBO | UNIT | YBS30005A | YBS3001A | YBS3002A | YBS3004A | YBS3006A | YBS3008A | YBS3010A |
|---|---|---|---|---|---|---|---|---|---|
| Device marking code | | | YBS30005A | YBS3001A | YBS3002 | YBS3004A | YBS3006A | YBS3008A | YBS3010A |
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Maximum RMS Voltage | $V_{RMS}$ | V | 35 | 70 | 140 | 280 | 420 | 560 | 700 |
| Maximum DC blocking Voltage | $V_{DC}$ | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average rectified output current @60Hz sine wave, R-load, Tc=110℃ | $I_O$ | A | 3.0 | | | | | | |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃ | $I_{FSM}$ | A | 120 | | | | | | |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃ | | | 240 | | | | | | |
| Current squared time @1ms≤t<8.3ms Tj=25℃，Rating of per diode | $I^2t$ | $A^2s$ | 59.8 | | | | | | |
| Storage temperature | Tstg | ℃ | -55 ~ +150 | | | | | | |
| Junction temperature | Tj | ℃ | -55 ~ +150 | | | | | | |

## ■Electrical Characteristics（$T_a$=25℃ Unless otherwise specified）

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | YBS30005A | YBS3001A | YBS3002A | YBS3004A | YBS3006A | YBS3008A | YBS3010A |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum instantaneous forward voltage drop per diode | $V_F$ | V | $I_{FM}$=1.5A | 1.0 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | $I_R$ | μA | Tj =25℃ | 5 | | | | | | |
| | | | Tj =125℃ | 100 | | | | | | |
| Typical junction capacitance | Cj | pF | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 40 | | | | | | |

## ■Thermal Characteristics （$T_a$=25℃ Unless otherwise specified）

| PARAMETER | | SYMBOL | UNIT | YBS30005A | YBS3001A | YBS3002A | YBS3004A | YBS3006A | YBS3008A | YBS3010A |
|---|---|---|---|---|---|---|---|---|---|---|
| Typical Thermal Resistance | Between Junction and Ambient | $R_{\theta J-A}$ | ℃/W | 55.0 | | | | | | |
| | Between Junction and Lead | $R_{\theta J-L}$ | | 15.0 | | | | | | |
| | Between Junction and Case | $R_{\theta J-C}$ | | 10.0 | | | | | | |

Note: Device mounted on P.C.B with 35mm*25mm*1.7mm.

## ■Ordering Information (Example)

| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---|---|---|---|---|---|---|
| YBS30005A-YBS3010A | F1 | Approximate 0.220 | 3000 | / | 42000 | 13” reel |

## ■ Characteristics(Typical)

FIG1:Io-Tc Curve

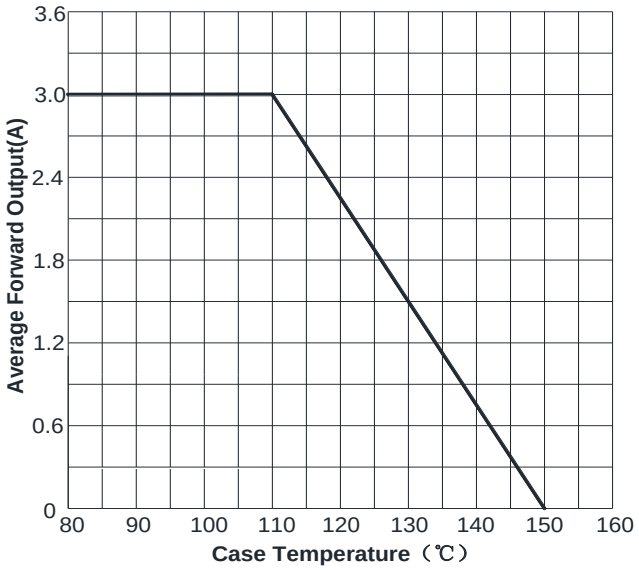



FIG2:Surge Forward Current Capability

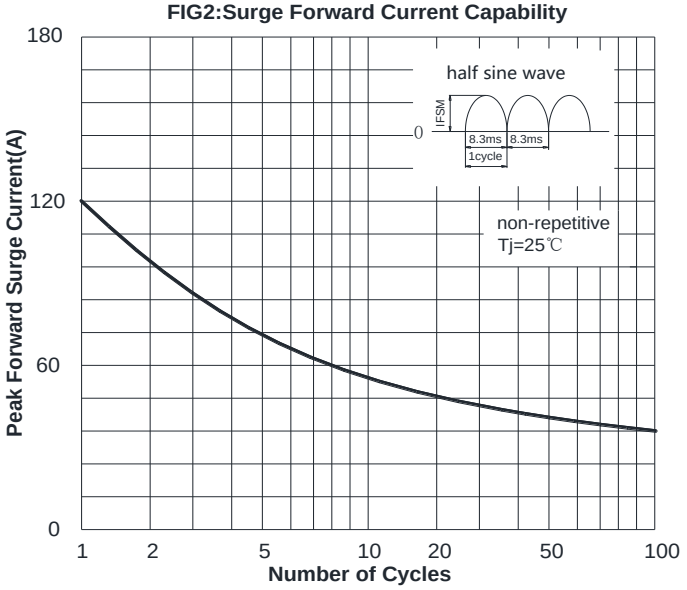


FIG3: Typical Forward Voltage

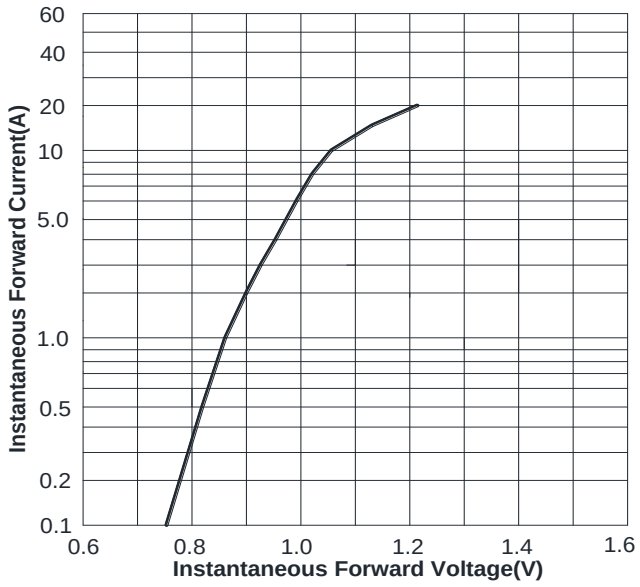
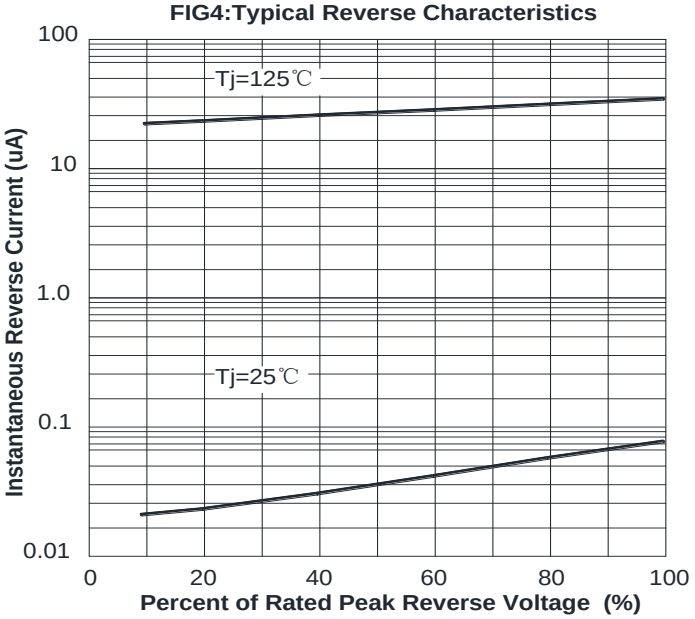
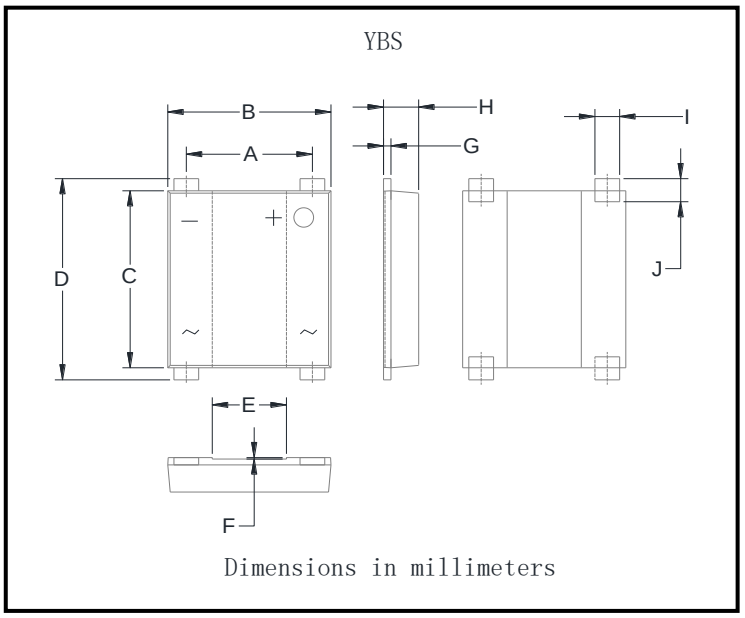



FIG4:Typical Reverse Characteristics

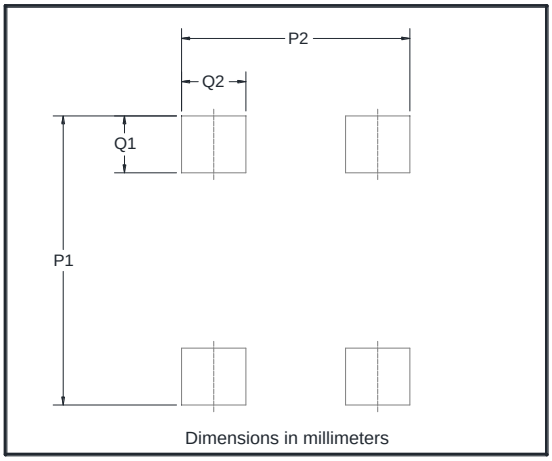



## ■ Outline Dimensions




| YBS | | |
|---|---|---|
| Dim | Min | Max |
| A | 5.00 | 5.20 |
| B | 6.50 | 6.70 |
| C | 7.20 | 7.40 |
| D | 7.90 | 8.60 |
| E | 2.90 | 3.10 |
| F | 0.04 | 0.08 |
| G | 0.27 | 0.40 |
| H | 1.30 | 1.50 |
| I | 0.95 | 1.15 |
| J | 0.70 | 1.05 |

## ■ Suggested pad layout




| Dim | Min |
|---|---|
| P1 | 9.15 |
| P2 | 7.10 |
| Q1 | 1.80 |
| Q2 | 2.00 |

## Notice

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