

Surface Mount Glass Passivated Low VF Bridge Rectifier

Voltage

800 V

Current

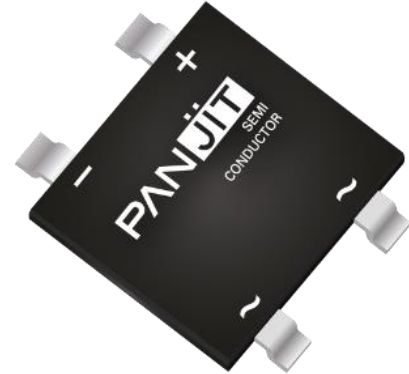
8A

M8

Features



- Glass passivated chip junction
- Low forward voltage drop
- Ideally suited for automatic assembly
- Save space on printed circuit boards
- Ultra thin profile package for space constrained utilization
- Lead free in compliance with EU RoHS 2.0
- Halogen-free according to IEC 61249 standard

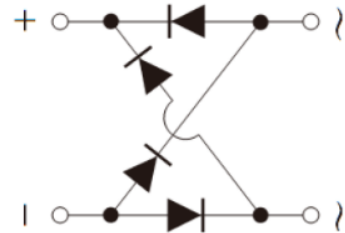


Mechanical Data

- Case : M8 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.4794 grams

Application

- Commercial Laptop Adapter
- Gaming NB Adapter
- Game Console Power
- TV Power Board



| Key Parameters | |
|--------------------------|--------------|
| Parameter | Value |
| V_{RRM} | 800V |
| $I_F(AV)$ | 8A |
| I_{FSM} | 170A |
| $V_F@125^{\circ}C,(typ)$ | 0.76V |
| I_R | 5uA |
| Package | M8 |

Maximum Ratings and Thermal Characteristics ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

| PARAMETER | SYMBOL | LIMIT | UNITS |
|--|-------------------------------------|---------|----------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 800 | V |
| Maximum RMS Voltage | V_{RMS} | 560 | V |
| Maximum DC Blocking Voltage | V_{DC} | 800 | V |
| Maximum Average Forward Current | $I_{F(AV)}$ | 8 | A |
| Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load | @ $T_A = 25\text{ }^\circ\text{C}$ | 170 | A |
| | @ $T_A = 125\text{ }^\circ\text{C}$ | 136 | |
| Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load | @ $T_A = 25\text{ }^\circ\text{C}$ | 340 | A |
| | @ $T_A = 125\text{ }^\circ\text{C}$ | 272 | |
| $I^2 t$ rating for fusing ($t = 8.3\text{ms}$) | $I^2 t$ | 120 | A^2S |
| Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$ | C_J | 65 | pF |
| Typical Thermal Resistance (Note 1) | $R_{\theta JA}$ | 16 | $^\circ\text{C/W}$ |
| | $R_{\theta JL}$ | 8 | |
| | $R_{\theta JC}$ | 2.5 | |
| Operating junction and storage temperature range | T_J, T_{STG} | -55~150 | $^\circ\text{C}$ |

Electrical Characteristics ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNITS |
|-----------------|--------|---|------|------|------|---------------|
| Forward Voltage | V_F | $I_F = 4\text{ A}, T_J = 25\text{ }^\circ\text{C}$ | - | 0.90 | 0.95 | V |
| | | $I_F = 4\text{ A}, T_J = 125\text{ }^\circ\text{C}$ | - | 0.76 | - | |
| Reverse Current | I_R | $V_R = 800\text{ V}, T_J = 25\text{ }^\circ\text{C}$ | - | - | 5 | μA |
| | | $V_R = 800\text{ V}, T_J = 125\text{ }^\circ\text{C}$ | - | - | 100 | |

NOTES :

1. Mounted on a FR4,100x100x1.6mm ,2oz copper pad area.

TYPICAL CHARACTERISTIC CURVES

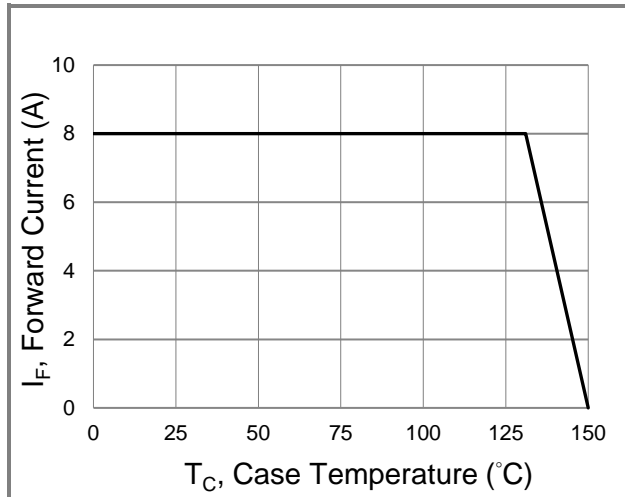


Fig.1 Forward Current Derating Curve

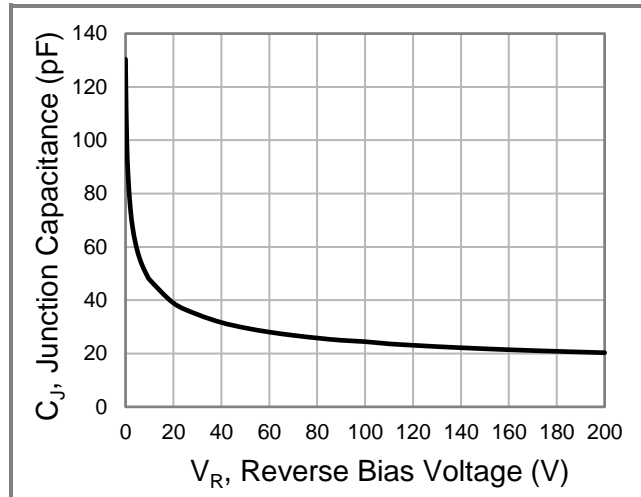


Fig.2 Typical Junction Capacitance

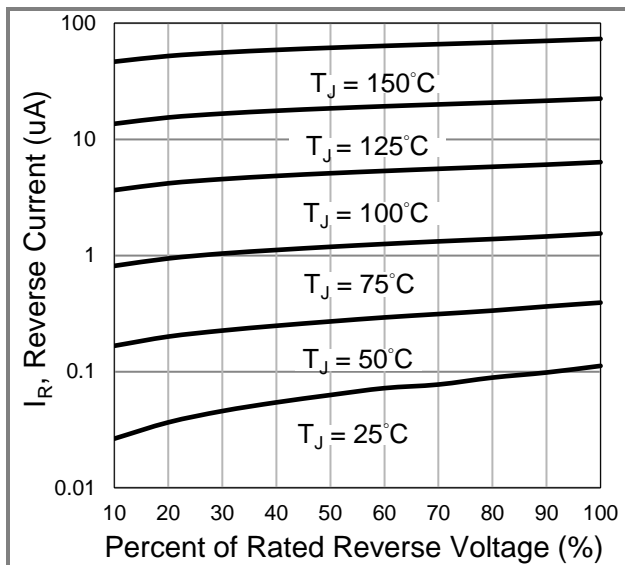


Fig.3 Typical Reverse Characteristics

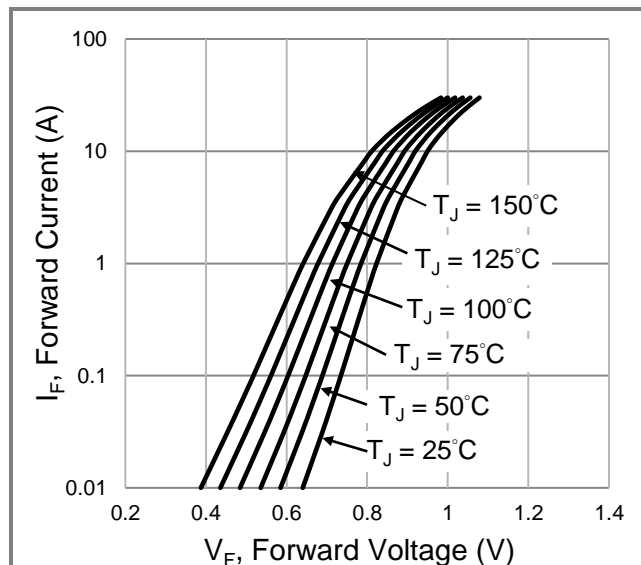
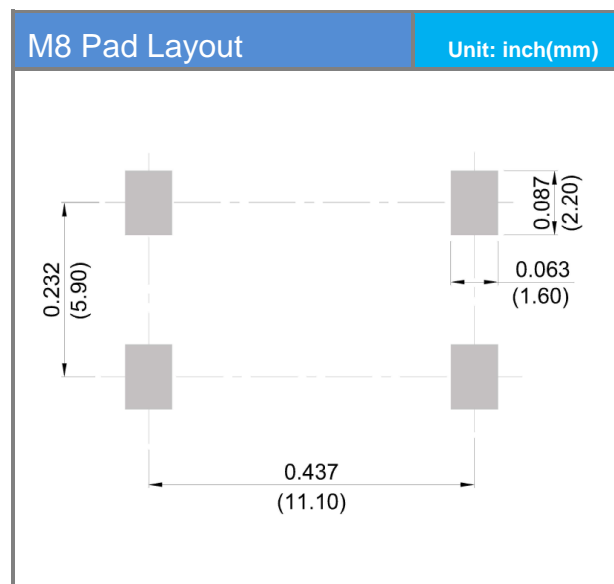
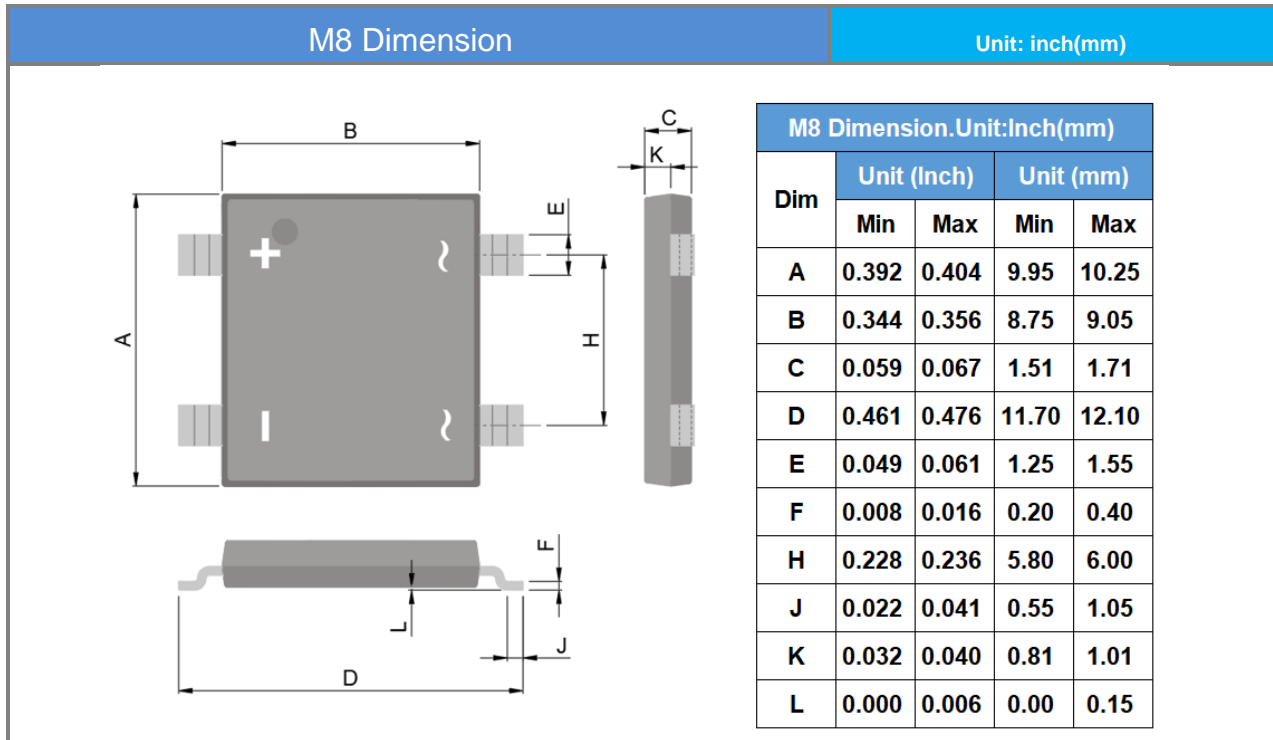


Fig.4 Typical Forward Characteristics

Product and Packing Information

| Approved Part No. | Package Type | Packing Type | Marking |
|-------------------|--------------|-------------------|---------|
| PM808LL | M8 | 2K pcs / 13" reel | PM808LL |

Packaging Information & Mounting Pad Layout



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