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# HDB101G THRU HDB107G

## 1.0 AMP. Glass Passivated Bridge High Efficient Rectifier 50 to 1000 Volts

## Features

- High Forward Surge Capability
- Ideal for printed circuit boards
- High Temperature Soldering: 250°C for 10 seconds
- Reliable low cost construction utilizing molded plastic technique

## Maximum Ratings

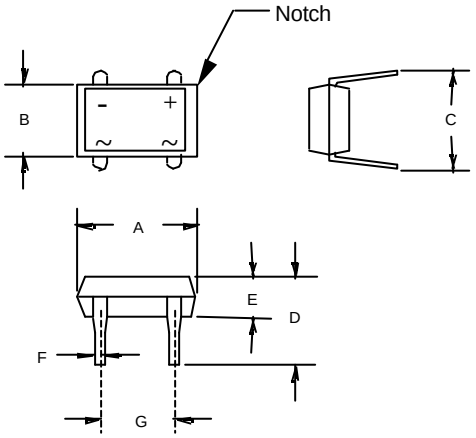
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- For Capacitive Load, Derate Current by 20%

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|---|---|---|---|
| HDB101G | 50V | 35V | 50V |
| HDB102G | 100V | 70V | 100V |
| HDB103G | 200V | 140V | 200V |
| HDB104G | 400V | 280V | 400V |
| HDB105G | 600V | 420V | 600V |
| HDB106G | 800V | 560V | 800V |
| HDB107G | 1000V | 700V | 1000V |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|---|---|---|
| Average Forward Current | $I_{F(AV)}$ | 1.0 A | $T_C$ = 40°C |
| Peak Forward Surge Current | $I_{FSM}$ | 50A | 8.3ms, half sine $T_J$=150°C |
| Maximum Instantaneous Forward Voltage<br>HDB101G-103G<br>HDB104G<br>HDB105G-107G | $V_F$ | <br>1.0V<br>1.3V<br>1.7V | <br>$I_{FM}$ = 1.0A;<br>$T_C$ = 25°C |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$ | 5.0μA<br>500uA | $T_C$ = 25°C<br>$T_C$ = 125°C |
| Maximum Reverse Recovery Time<br>HDB101G-104G<br>HDB105G-107G | $T_{rr}$ | <br>50ns<br>75ns | <br>$I_F$=0.5A, $I_R$=1.0A, $I_{rr}$=0.25A |

## DB-1




| DIMENSIONS | | | | | |
|---|---|---|---|---|---|
| | INCHES | | MM | | |
| DIM | MIN | MAX | MIN | MAX | NOTE |
| A | .320 | .335 | 8.13 | 8.51 | |
| B | .245 | .255 | 6.2 | 6.5 | |
| C | .300 | .350 | 7.60 | 8.90 | |
| D | .236 | .283 | 6.01 | 7.20 | |
| E | .120 | .130 | 3.05 | 3.3 | |
| F | .016 | .022 | 0.41 | 0.56 | |
| G | .195 | .205 | 5.00 | 5.20 | |

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

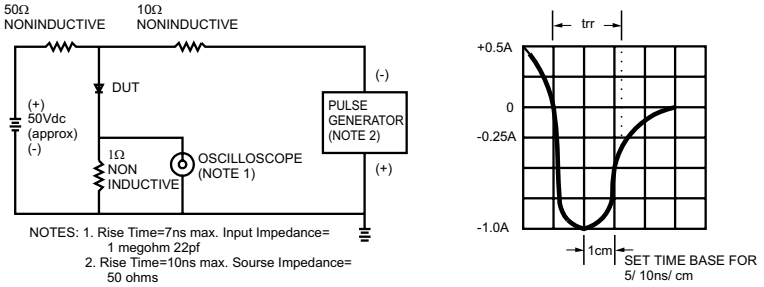



FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

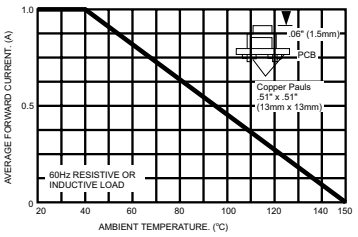



FIG.3- TYPICAL REVERSE CHARACTERISTICS

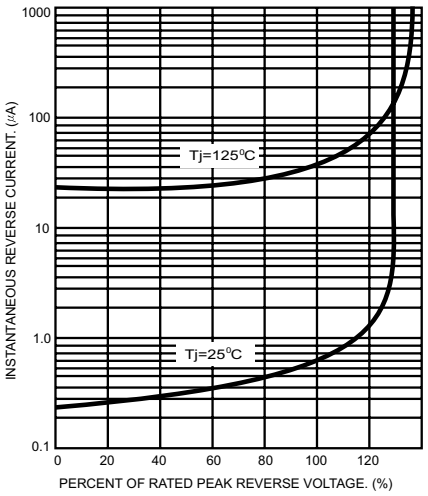



FIG.4- TYPICAL FORWARD CHARACTERISTICS

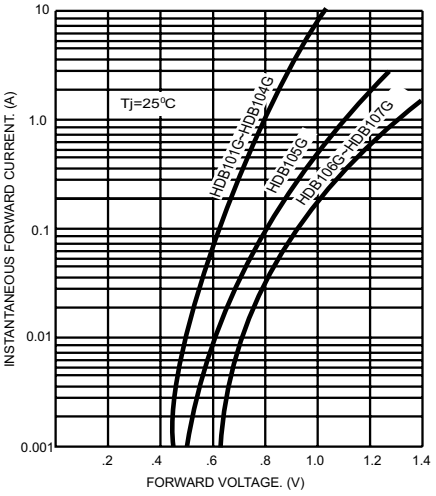



FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

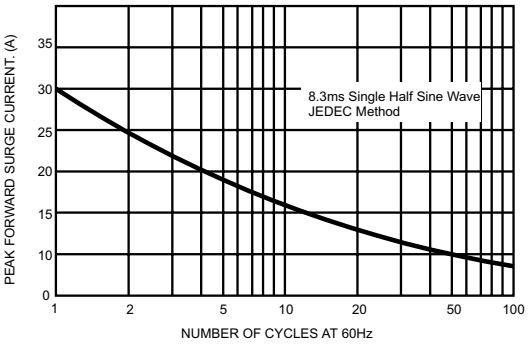



FIG.6- TYPICAL JUNCTION CAPACITANCE

