

DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

DB101 THRU DB107

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 1.0 Ampere

FEATURES

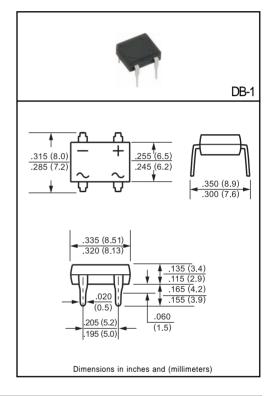
- * Good for automation insertion
- * Surge overload rating 50 Amperes peak
- * Ideal for printed circuit board
- * Reliable low cost construction
- * Glass passivated junction

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 0.4 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



| | | SYMBOL | DB101 | DB102 | DB103 | DB104 | DB105 | DB106 | DB107 | UNITS |
|---|-------------|------------------|--------------|-------|-------|-------|-------|-------|--------------------|---------|
| Maximum Recurrent Peak Reverse Voltage | | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Bridge Input Voltage | | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Output Current at TA = 40°C | | lo | 1.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | | IFSM | 50 | | | | | | Amps | |
| Maximum Forward Voltage Drop per element at 1.0A DC | | VF | 1.1 | | | | | | Volts | |
| Maximum DC Reverse Current at Rated | @TA = 25°C | l _R | 10 | | | | | | | - uAmps |
| DC Blocking Voltage per element | @TA = 125°C | T IK | 500 | | | | | | | |
| I ² t Rating for Fusing (t<8.3ms) | | l ² t | 10 | | | | | | A ² Sec | |
| Typical Junction Capacitance (Note1) | | CJ | 25 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | | RθJA | 40 | | | | | | | °C/W |
| Operating and Storage Temperature Range | | TJ,TSTG | -65 to + 150 | | | | | | | °C |

NOTES: 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts

^{2.} Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13x13mm) copper pads.

RATING AND CHARACTERISTIC CURVES (DB101 THRU DB107)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PEAK FORWARD SURGE CURRENT, (A) 8.3ms Single Half Sine-Wave (JEDEC Method) 60 100 NUMBER OF CYCLES AT 60Hz

