

**SINGLE-PHASE GLASS PASSIVATED
SILICON BRIDGE RECTIFIER**
VOLTAGE RANGE 50 to 1000 Volts CURRENT 2.0 Amperes

FEATURES

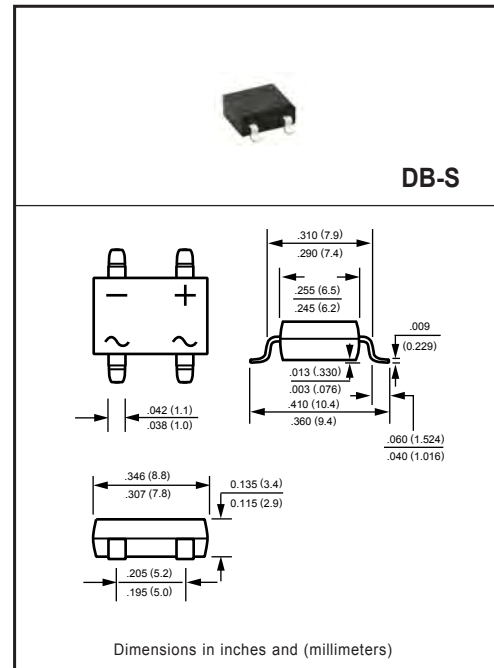
- * Good for automation insertion
- * Surge overload rating - 60 amperes peak
- * Ideal for printed circuit board
- * Reliable low cost construction utilizing molded
- * Glass passivated device
- * Polarity symbols molded on body
- * Mounting position: Any
- * Weight: 1.0 gram

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-0

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load.



MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

| RATINGS | SYMBOL | DB201S | DB202S | DB203S | DB204S | DB205S | DB206S | DB207S | UNITS |
|---|-----------------|-------------|--------|--------|--------|--------|--------|--------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Bridge Input Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Output Current at $T_A = 40^\circ\text{C}$ | I_O | 2.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 60 | | | | | | | Amps |
| Typical Current Squared Time | I^2T | 14.9 | | | | | | | A·S |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 40 | | | | | | | $^\circ\text{C}/\text{W}$ |
| | $R_{\theta JL}$ | 15 | | | | | | | |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

| CHARACTERISTICS | SYMBOL | DB201S | DB202S | DB203S | DB204S | DB205S | DB206S | DB207S | UNITS |
|--|-----------------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Forward Voltage Drop per Bridge Element at 2.0A DC | V_F | 1.1 | | | | | | | Volts |
| Maximum Reverse Current at Rated DC Blocking Voltage per element | @ $T_A = 25^\circ\text{C}$ | 5.0 | | | | | | | uAmps |
| | @ $T_A = 125^\circ\text{C}$ | 0.5 | | | | | | | |

Note: 1. "Fully ROHS compliant", "100% Sn plating (Pb-free).
2. Thermal Resistance: Mounted on PCB.

2009-12
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RATING AND CHARACTERISTICS CURVES (DB201S THRU DB207S)

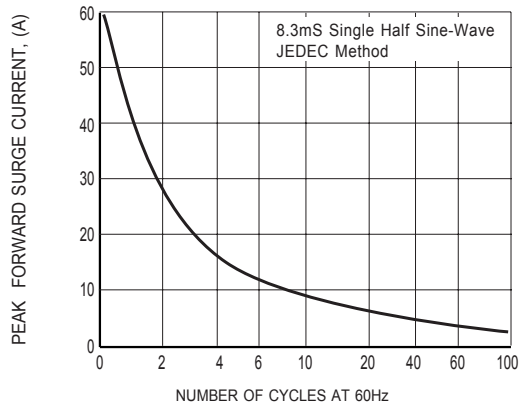


FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

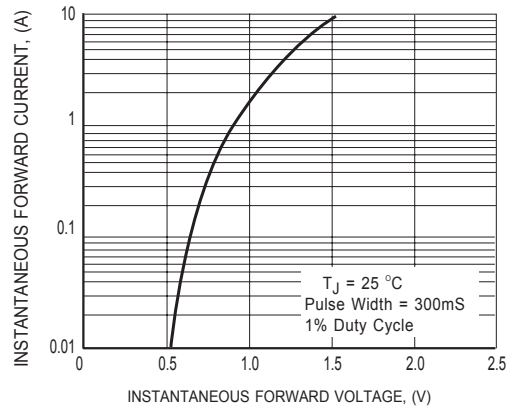


FIG. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

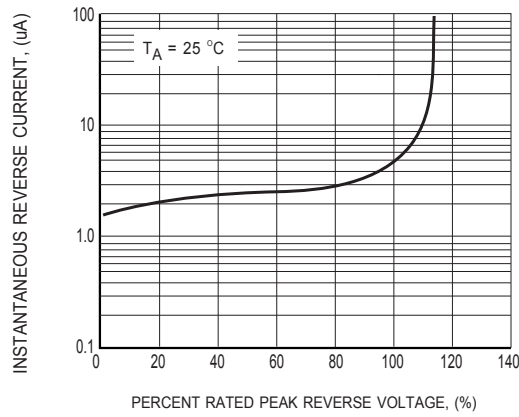


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

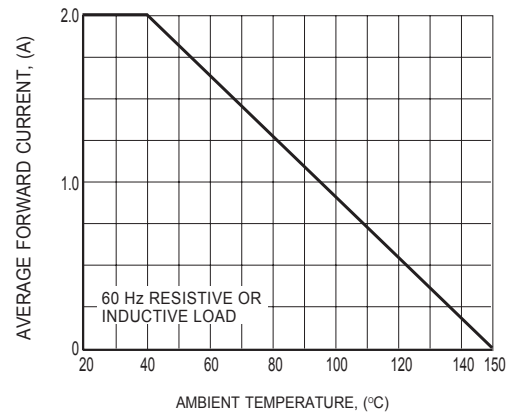
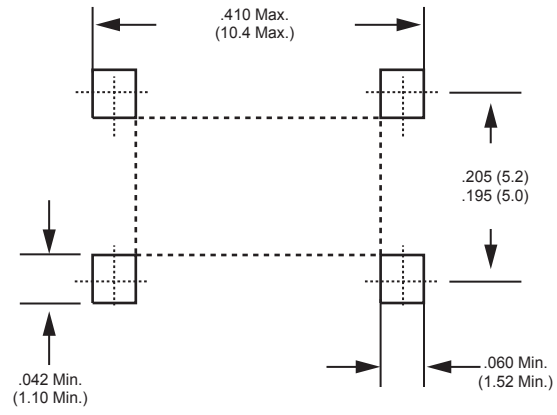


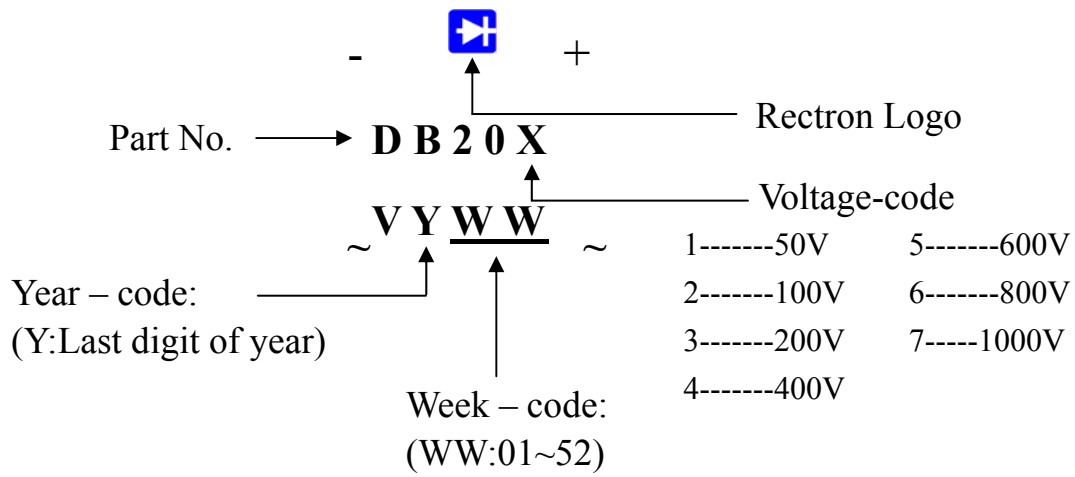
FIG. 4 TYPICAL FORWARD CURRENT DERATING CURVE

Mounting Pad Layout



Dimensions in inches and (millimeters)

Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

TUBE PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE (mm) | CARTON SIZE (mm) | EA PER CARTON | WEIGHT(Kg) |
|---------|--------------|------------|------------------------|---------------------|---------------|------------|
| DB-S | -C | 4,000 | 450*140*84 | 464*305*283 | 24,000 | 18.44 |

REEL PACK

| PACKAGE | PACKING CODE | EA PER REEL | COMPONENT SPACE(mm) | TAPE SPACE (mm) | REEL DIA (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|-------------|---------------------|-----------------|---------------|------------------|---------------|------------------|
| DB-S | -T | 1,000 | 9.5 | 52 | 176 | 355*360*350 | 8,000 | 9.80 |

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