

**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

MECHANICAL DATA

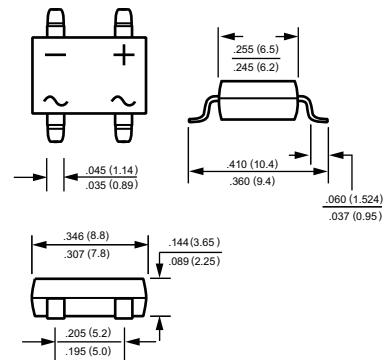
- * Epoxy: Device has UL flammability classification 94V-0

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



DB-S



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. "ROHS compliant"
2. Thermal Resistance: Mounted on PCB.

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REV:D

RATING AND CHARACTERISTICS CURVES (DB201S THRU DB207S)

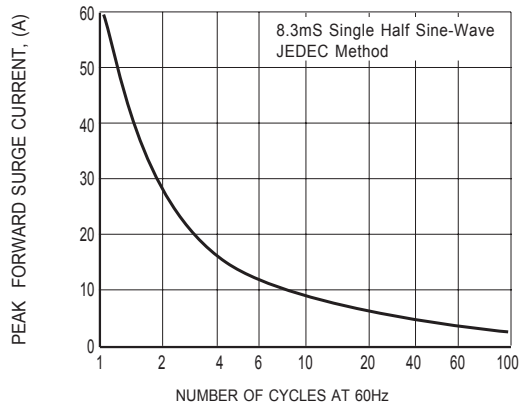


FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

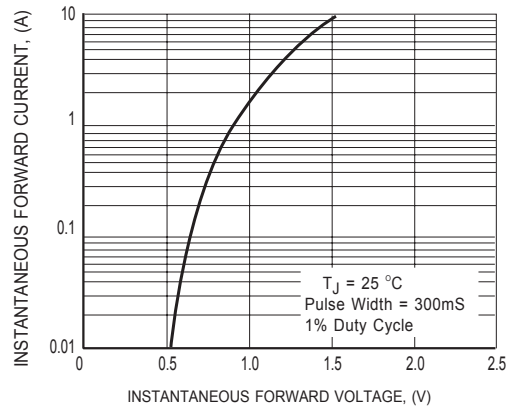


FIG. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

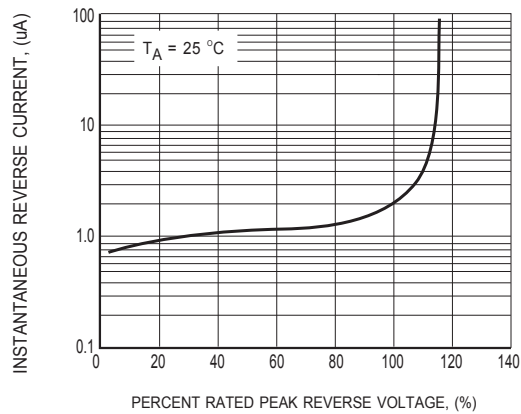


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

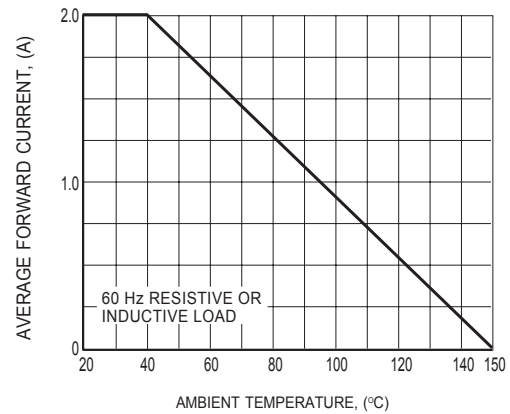
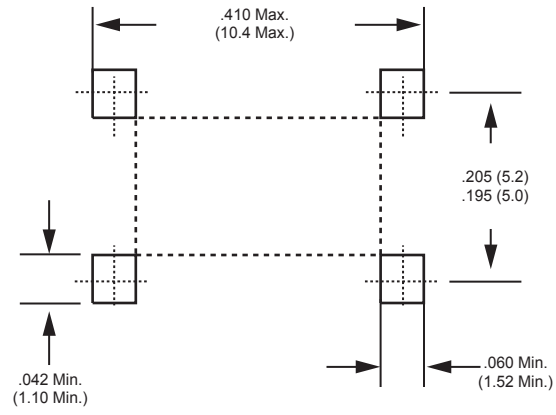


FIG. 4 TYPICAL FORWARD CURRENT DERATING CURVE

Mounting Pad Layout



Dimensions in inches and (millimeters)

REEL TAPING SPECIFICATIONS FOR SURFACE MOUNT DEVICES - DBS

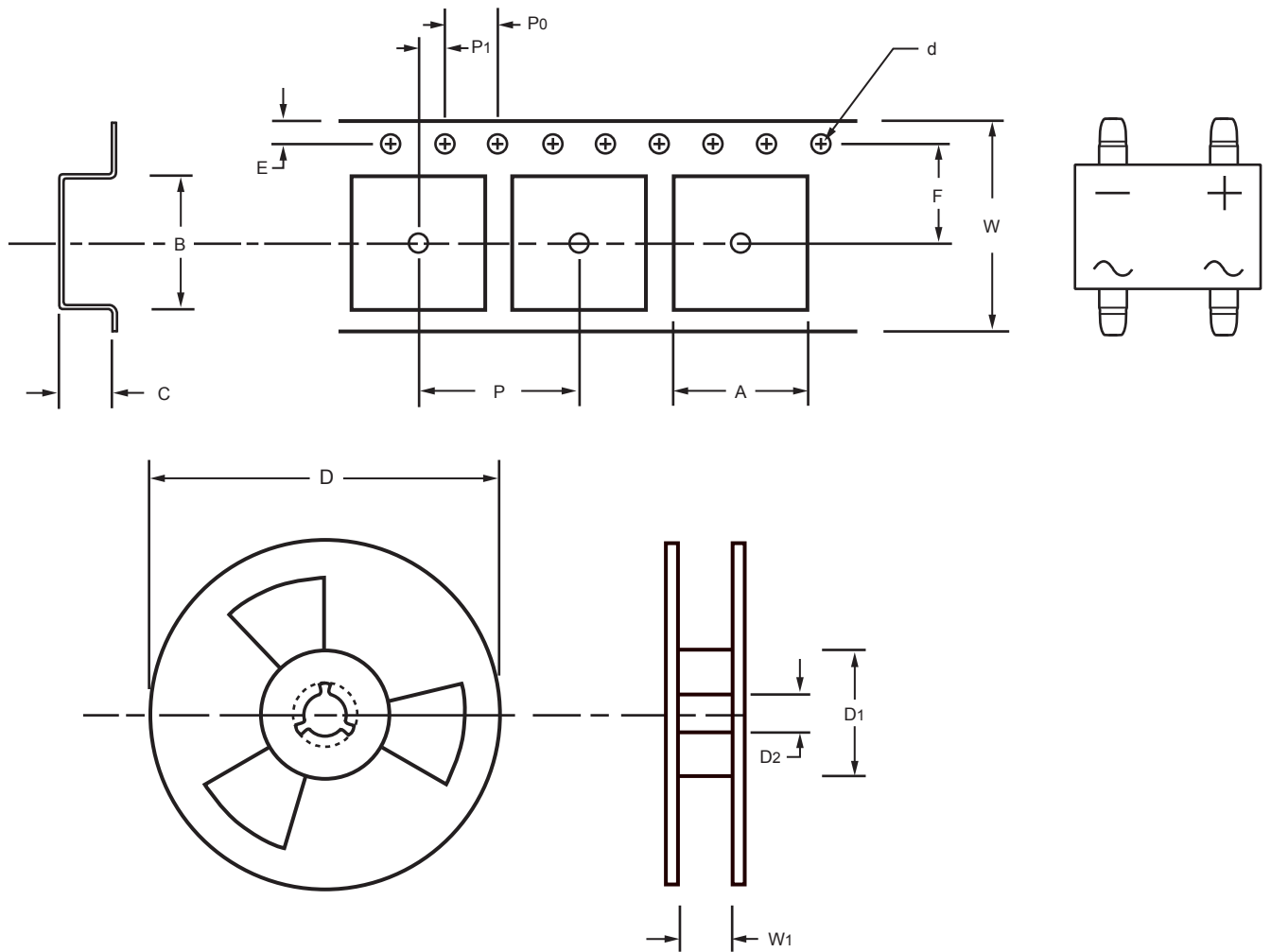


Fig.: Configuration of DBS REEL TAPING

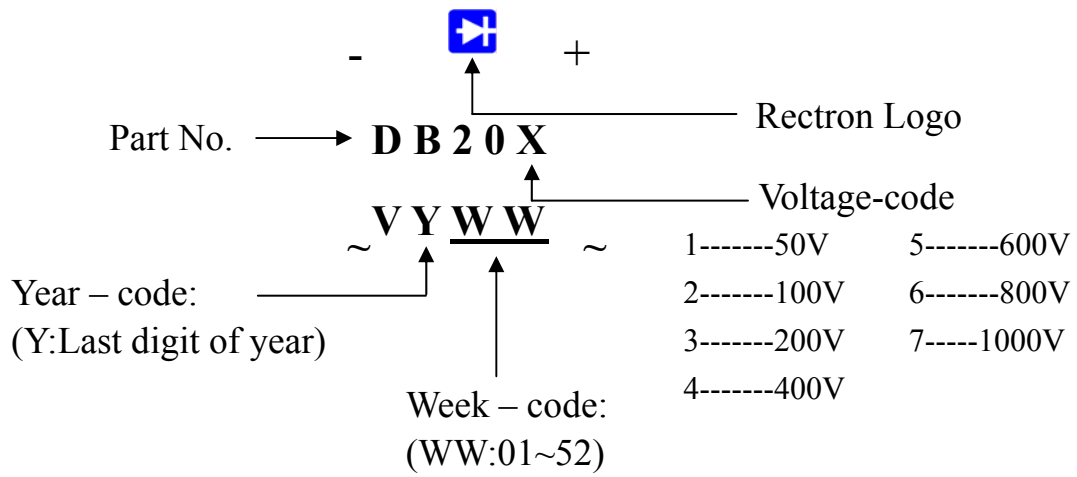
| ITEM | SYMBOL | SPECIFICATIONS (mm) | SPECIFICATIONS (inch) |
|------------------------|--------|---------------------|-----------------------|
| Carrier width | A | 10.2 ± 0.1 | 0.402 ± 0.004 |
| Carrier length | B | 10.3 ± 0.1 | 0.406 ± 0.004 |
| Carrier depth | C | 4.25 ± 0.1 | 0.167 ± 0.004 |
| Sprocket hole | d | 1.55 ± 0.1 | 0.061 ± 0.004 |
| Reel outside diameter | D | 330.0 ± 2.0 | 12.992 ± 0.079 |
| Reel inner diameter | D1 | 16.4 ± 2.0 | 0.646 ± 0.079 |
| Feed hole diameter | D2 | 13.0 ± 0.2 | 0.512 ± 0.008 |
| Sprocket hole position | E | 1.75 ± 0.1 | 0.069 ± 0.004 |
| Punch hole position | F | 7.5 ± 0.1 | 0.295 ± 0.004 |
| Punch hole pitch | P | 12.0 ± 0.1 | 0.472 ± 0.004 |
| Sprocket hole pitch | P0 | 4.0 ± 0.1 | 0.157 ± 0.004 |
| Embossment center | P1 | 2.0 ± 0.1 | 0.079 ± 0.004 |
| Tape width | W | 16.0 ± 0.3 | 0.63 ± 0.012 |
| Reel width | W1 | 22.4 ± 1.0 | 0.882 ± 0.039 |

Notes : 1. Devices are packed in accordance with EIA stand RS-481-D and specifications listed above. Available only for DB-S devices.

2. Available on 7 inch (1000 c.t.) or 13 inch (5000 c.t.) diameter reels.

Visit [http:// www.rectron.com](http://www.rectron.com) for complete datasheets

Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

| PACKAGE | PACKING CODE | EA PER REEL | EA PER INNER BOX | COMPONENT SPACE (mm) | TAPE SPACE (mm) | REEL DIA (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|-------------|------------------|----------------------|-----------------|---------------|------------------|---------------|------------------|
| DB-S | -T/W | 1,000 | 1,000 | 9.5 | 52 | 330 | 360*355*360 | 8,000 | 9.8 |

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