

D3SBA10 ~ D3SBA80

PRV : 100 ~ 800 Volts

I_o : 4.0 Amperes

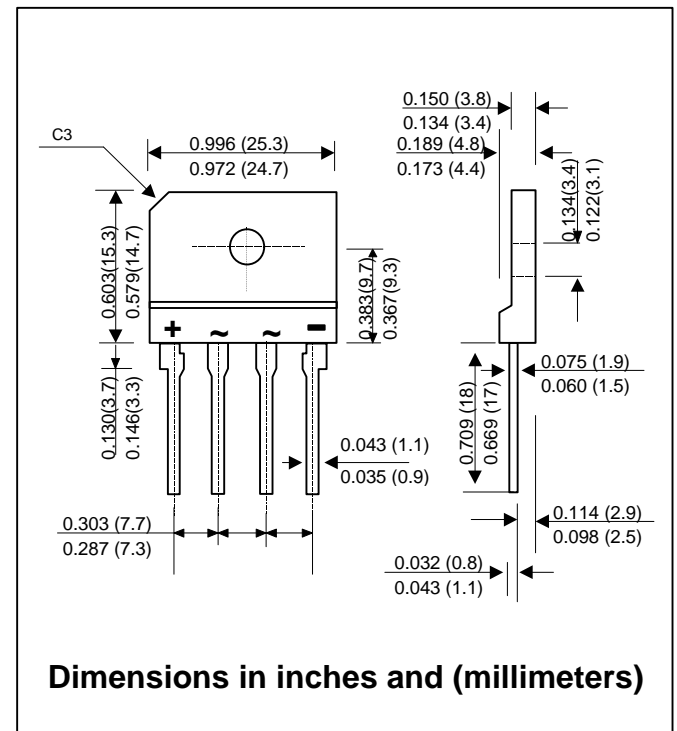
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Ideal for printed circuit board
- * Very good heat dissipation
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : Reliable low cost construction utilizing molded plastic technique
- * Epoxy : UL94V-O rate flame retardant
- * Terminals : Plated lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Polarity symbols marked on case
- * Mounting position : Any
- * Weight : 4.28 grams

SILICON BRIDGE RECTIFIER



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.

| RATING | SYMBOL | D3SBA 10 | D3SBA 20 | D3SBA 40 | D3SBA 60 | D3SBA 80 | UNIT |
|--|--------------------|--|----------|----------|----------|----------|------------------|
| Maximum Reverse Voltage | V _{RM} | 100 | 200 | 400 | 600 | 800 | V |
| Maximum Average Forward Current (50Hz Sine wave, R-load) | I _{F(AV)} | 4 (With heatsink, T _c = 108°C) 2.3 (Without heatsink, T _a = 25°C) | | | | | A |
| Maximum Peak Forward Surge Current (50 Hz, Half-cycle, Sinwave, Single Shot) | I _{FSM} | 80 | | | | | A |
| Current Squared Time at 1ms ≤ t < 10 ms, T _c =25°C | I ² t | 32 | | | | | A ² S |
| Maximum Forward Voltage per Diode at I _F = 2.0 A. | V _F | 1.05 | | | | | V |
| Maximum DC Reverse Current, V _R =V _{RM} (Pulse measurement, Rating of per diode) | I _R | 10 | | | | | μA |
| Maximum Thermal Resistance, Junction to case | R _{θJC} | 5.5 (With heatsink) | | | | | °C/W |
| Maximum Thermal Resistance, Junction to Ambient | R _{θJA} | 30 (Without heatsink) | | | | | °C/W |
| Operating Junction Temperature Range | T _J | 150 | | | | | °C |
| Storage Temperature Range | T _{STG} | - 40 to + 150 | | | | | °C |

RATING AND CHARACTERISTIC CURVES (D3SBA10 ~ D3SBA80)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

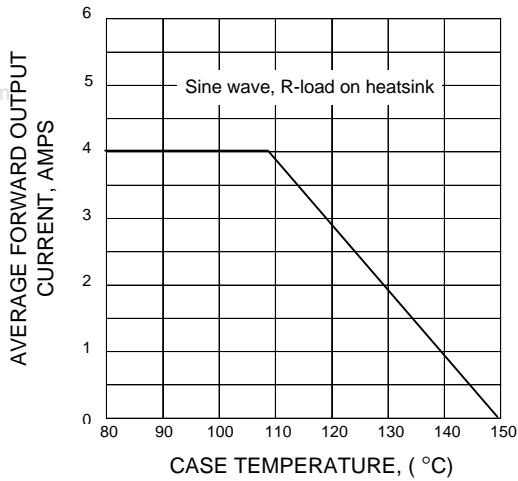


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

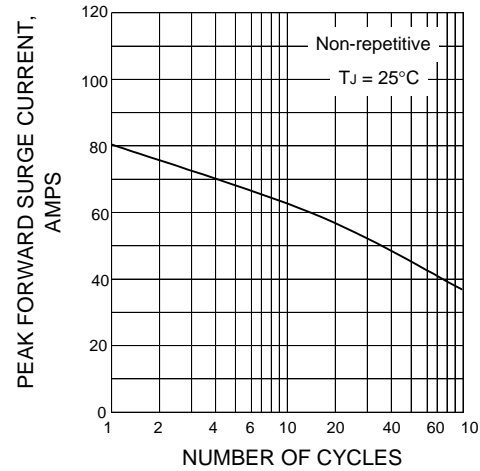


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

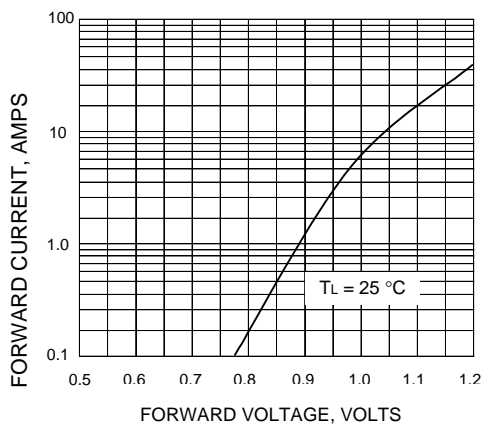


FIG.4 - POWER DISSIPATION

