

D3SBA10 ~ D3SBA80

PRV : 100 ~ 800 Volts

Io : 4.0 Amperes

FEATURES :

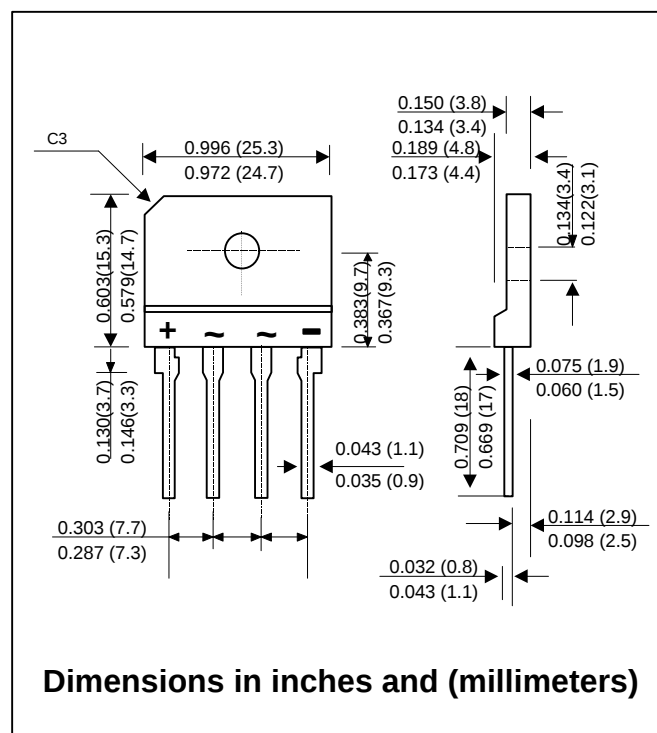
- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Ideal for printed circuit board
- * Very good heat dissipation

* **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, $T_c = 108^\circ\text{C}$) 2.3 (Without heatsink, $T_a = 25^\circ\text{C}$)					A
Maximum Peak Forward Surge Current (50 Hz, Half-cycle, Sinwave, Single Shot)	I_{FSM}	80					A
Current Squared Time at $1\text{ms} \leq t < 10\text{ms}$, $T_c=25^\circ\text{C}$	I^2t	32					A^2S
Maximum Forward Voltage per Diode at $I_F = 2.0\text{A}$.	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	$R_{\theta JC}$	5.5 (With heatsink)					$^\circ\text{C/W}$
Maximum Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	30 (Without heatsink)					$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	150					$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 40 to + 150					$^\circ\text{C}$

RATING AND CHARACTERISTIC CURVES (D3SBA10 ~ D3SBA80)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

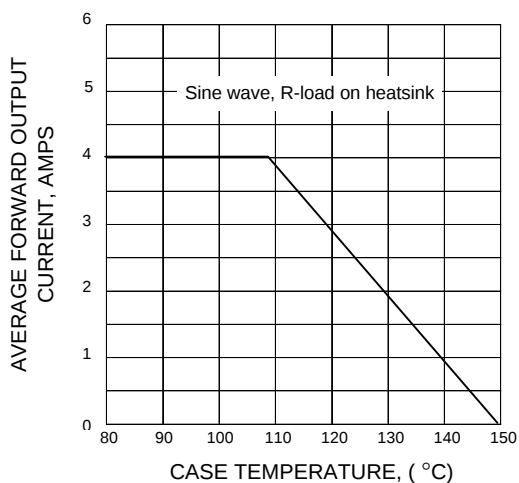


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

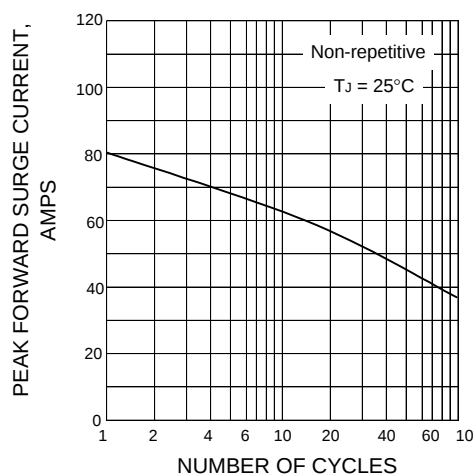


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

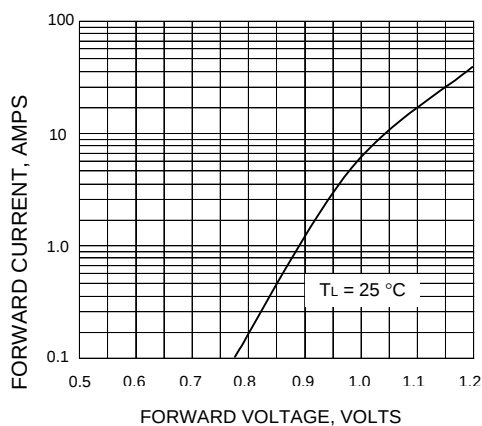


FIG.4 - POWER DISSIPATION

