



Certificate Number: Q10561

Certificate Number: E12726

## D3SBA10 ~ D3SBA80

**PRV : 100 ~ 800 Volts**

**Io : 4.0 Amperes**

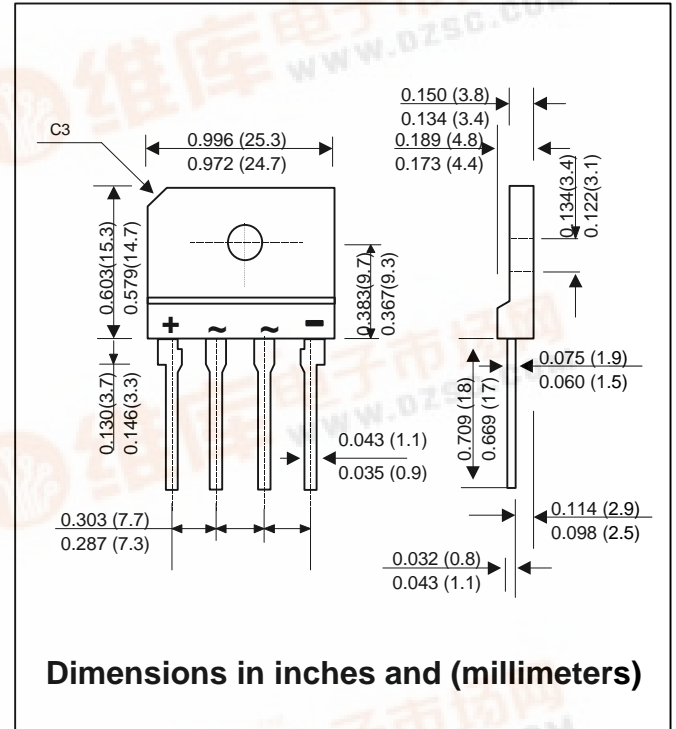
### FEATURES :

- \* 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



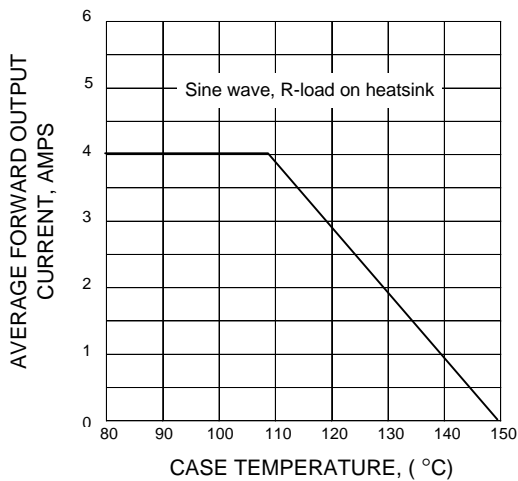
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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%.

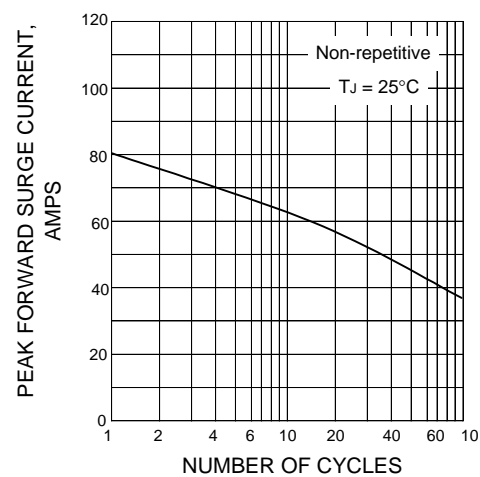
RATING	SYMBOL	D3SBA 10	D3SBA 20	D3SBA 40	D3SBA 60	D3SBA 80	UNIT
Maximum Reverse Voltage	V <sub>RM</sub>	100	200	400	600	800	V
Maximum Average Forward Current (50Hz Sine wave, R-load)	I <sub>F(AV)</sub>	4 (With heatsink, T <sub>c</sub> = 108°C) 2.3 (Without heatsink, T <sub>a</sub> = 25°C)					A
Maximum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

## RATING AND CHARACTERISTIC CURVES ( D3SBA10 ~ D3SBA80)

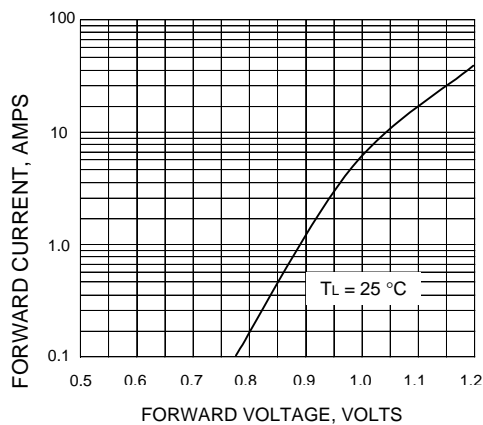
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**



**FIG.4 - POWER DISSIPATION**

