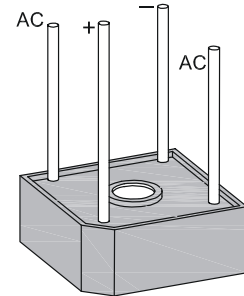


### 6.0A Single-Phase Silicon Bridge Rectifier

#### Features

- High forward surge current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed:  
260°C/10 seconds/5 lbs. (2.3kg) tension
- RoHS Compliant



TB6



#### Mechanical Data

|                   |  |
|-------------------|--|
| <b>Case:</b>      | Molded plastic body                          |
| <b>Epoxy:</b>     | Meets UL 94V-0 flammability rating           |
| <b>Terminals:</b> | Lead solderable per MIL-STD-202E method 208C |
| <b>Polarity:</b>  | Marked on case                               |
| <b>Weight:</b>    | 3.8 grams                                    |

#### Maximum Ratings & Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted)

| Symbol        | Description  | TB605       | TB61 | TB62 | TB64 | TB66 | TB68 | TB610 | Unit | Conditions |
|---------------|--|-------------|------|------|------|------|------|-------|------|------------|
| <b>VRRM</b>   | Maximum Repetitive Peak Reverse Voltage                          | 50          | 100  | 200  | 400  | 600  | 800  | 1000  | V    |            |
| <b>VRMS</b>   | Maximum RMS Voltage  | 35          | 70   | 140  | 280  | 420  | 560  | 700   | V    |            |
| <b>VDC</b>    | Maximum DC Blocking Voltage                                      | 50          | 100  | 200  | 400  | 600  | 800  | 1000  | V    |            |
| <b>IO(AV)</b> | Maximum Average Forward Rectified Current                        | 6.0         |      |      |      |      |      |       | A    | TA = 50 °C |
| <b>IFSM</b>   | Peak Forward Surge Current                                       | 125         |      |      |      |      |      |       | A    | Note1      |
| <b>VF</b>     | Maximum Forward Voltage  | 1.0         |      |      |      |      |      |       | V    | IO=3A      |
| <b>IR</b>     | Maximum Reverse Current at Rated DC Blocking Voltage per element | 5.0         |      |      |      |      |      |       | uA   | TA = 25 °C |
|               |  | 500         |      |      |      |      |      |       |      | TA =100 °C |
| <b>CJ</b>     | Typical junction capacitance                                     | 80          |      |      |      |      |      |       | pF   | Note 2     |
| <b>TJ</b>     | Operating Temperature Range                                      | -55 to +125 |      |      |      |      |      |       | °C   |            |
| <b>TSTG</b>   | Storage Temperature Range  | -55 to +150 |      |      |      |      |      |       | °C   |            |

# 6.0A Single-Phase Silicon Bridge Rectifier

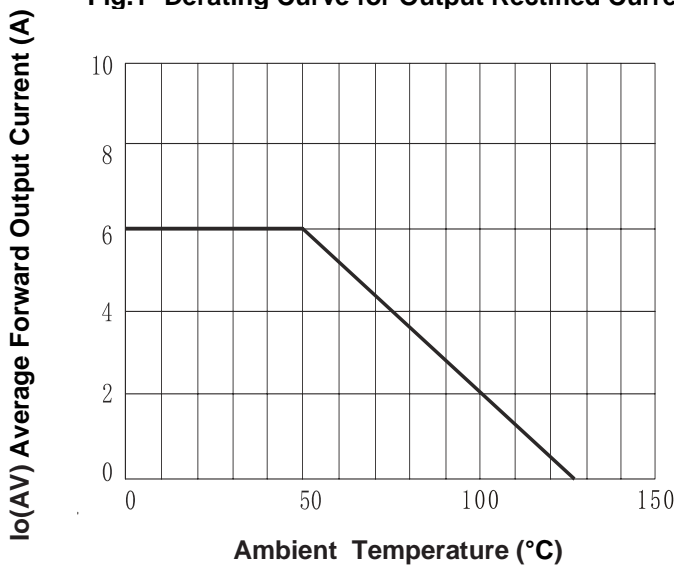
TB605 - TB610

**NOTES:**

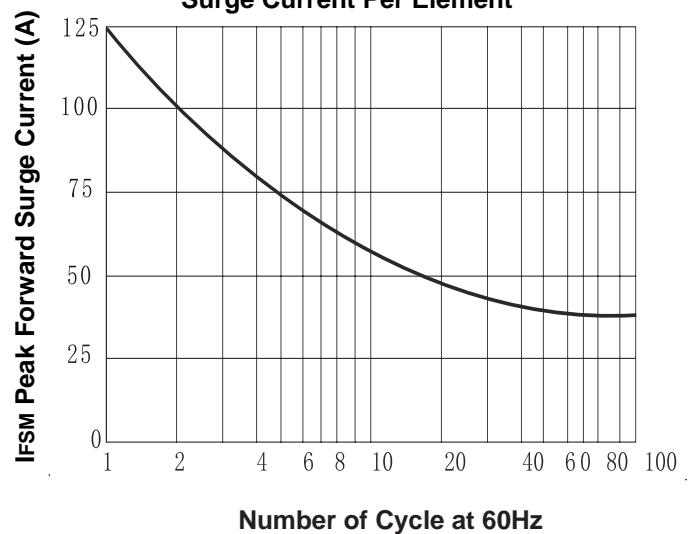
1. 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)
2. Measured at 1MHz and applied 4vDC reverse voltage

## Typical Characteristics Curves

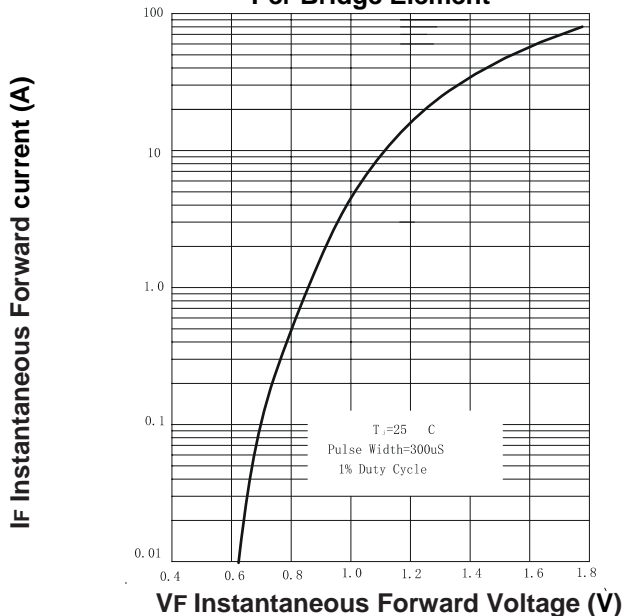
**Fig.1- Derating Curve for Output Rectified Current**



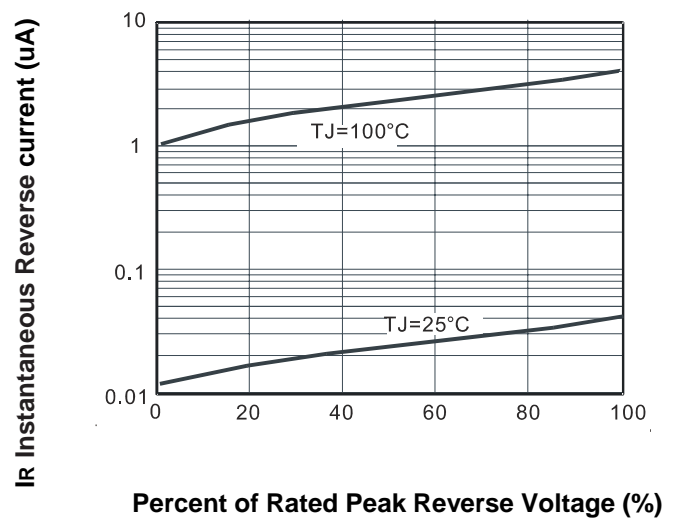
**Fig.2- Maximum Non-Repetitive Peak Forward Surge Current Per Element**



**Fig.3- Typical Forward Characteristics Per Bridge Element**



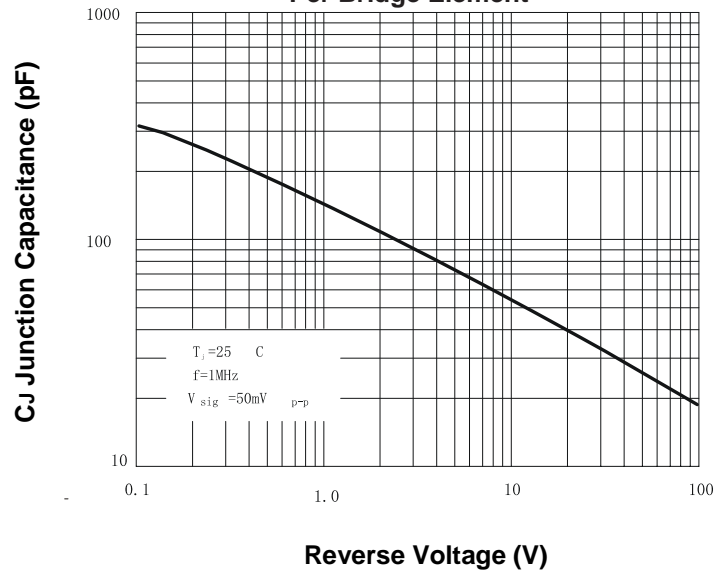
**Fig.4- Typical Reverse Characteristics Per Bridge Element**



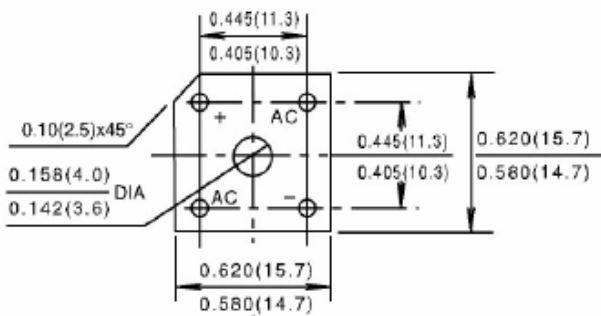
# 6.0A Single-Phase Silicon Bridge Rectifier

TB605 - TB610

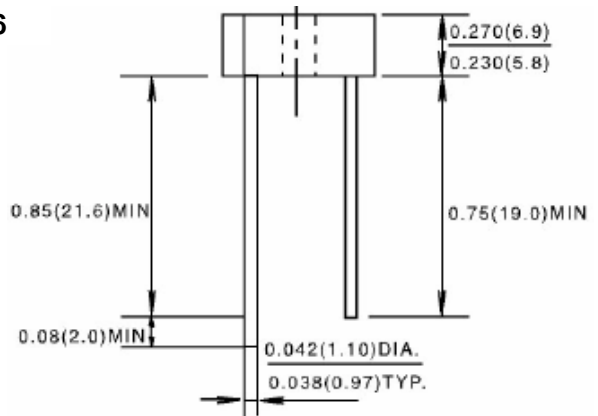
Fig.5- Typical Junction Capacitance Per Bridge Element



## Dimensions in inch (mm)



TB6



# 6.0A Single-Phase Silicon Bridge Rectifier

TB605 - TB610

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