

## SC50VB80-G Thru. SC50VB160-G

Reverse Voltage: 800V and 1600V

Forward Current: 50A

RoHS Device

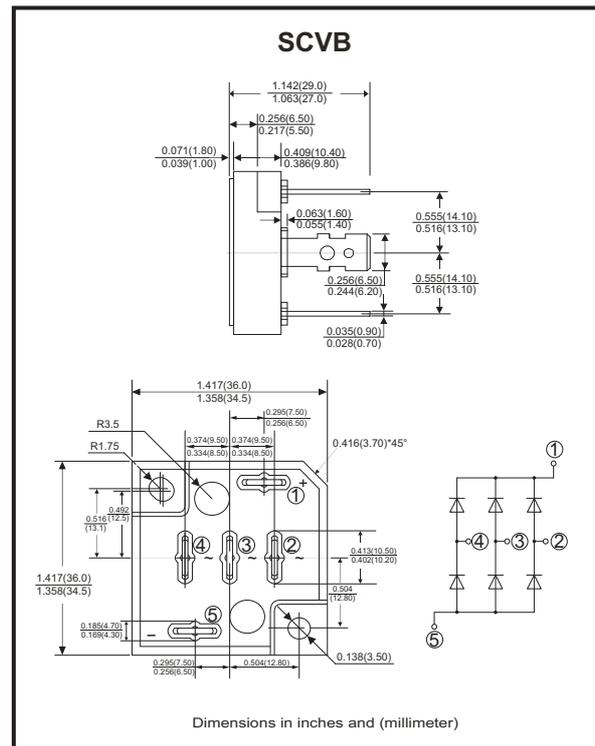


### Features

- 3 phase bridge rectifiers
- Surge overload -500 Amperes peak
- Low forward voltage drop
- Materials used carries U/L recognition

### Mechanical Data

- Polarit:As marked on Body
- Mounting position:Any
- Weight: 45 grams



### Maximum ratings and electrical characteristics

Rating at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave ,60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

| Parameter   | Symbol            | SC50VB80-G  | SC50VB160-G | Unit             |
|---|-------------------|-------------|-------------|------------------|
| Maximum Recurrent Peak Reverse Voltage  | V <sub>RRM</sub>  | 800         | 1600        | V                |
| Maximum RMS Bridge Input Voltage  | V <sub>RMS</sub>  | 560         | 1120        | V                |
| Maximum Average Forward Rectified Output Current @T <sub>c</sub> =55°C                              | I <sub>(AV)</sub> | 50          |             | A                |
| Peak Forward Surge Current, 8.3ms Single Half Sine -Wave Super Imposed On Rated Load (JEDEC Method) | I <sub>FSM</sub>  | 500         |             | A                |
| Current Squared time (1ms < t < 10ms)   | I <sup>2</sup> t  | 500         |             | A <sup>2</sup> s |
| Dielectric Strength   | V <sub>dis</sub>  | 2000        |             | V                |
| Mounting Torque   | TOR               | 0.8         |             | N.m              |
| Maximum Forward Voltage Drop Per Element At 17.5A Peak  | V <sub>F</sub>    | 1.05        | 1.1         | V                |
| Maximum Reverse Current At Rated DC Blocking Voltage Per Element @T <sub>A</sub> =25°C              | I <sub>R</sub>    | 10          | 100         | μA               |
| Typical Thermal Resistance (Note 1)   | R <sub>θJA</sub>  | Max: 0.7    |             | °C/W             |
| Operating Temperature Range   | T <sub>J</sub>    | -55 to +150 |             | °C               |
| Storage Temperature Range   | T <sub>STG</sub>  | -55 to +150 |             | °C               |

Notes: 1.Thermal Resistance Junction to case.  
2.Company reserves the right to improve product design , functions and reliability without notice.

## Rating and Characteristics Curves (SC50VB80-G Thru. SC50VB160-G)

Fig.1 - De-rating Current Output Rectified Current

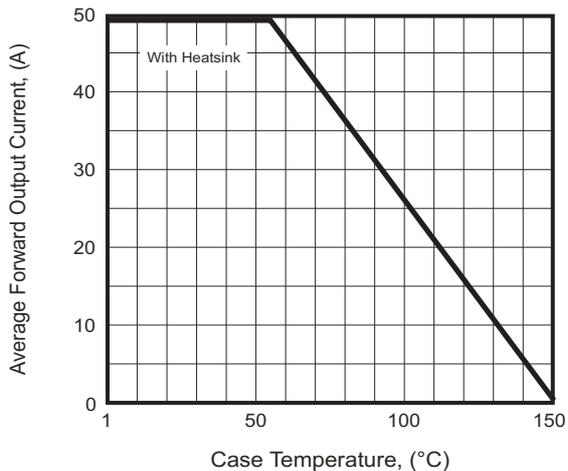


Fig.2 - Typical Forward Characteristics

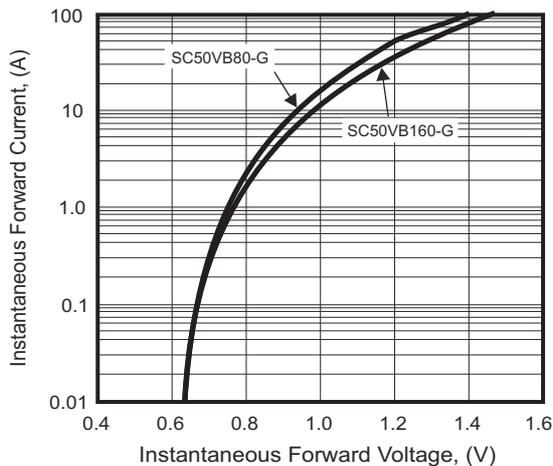


Fig.3 - Maximum Forward Surge Current

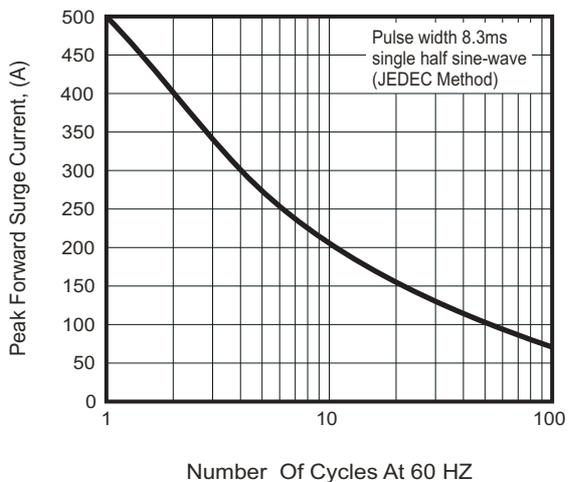
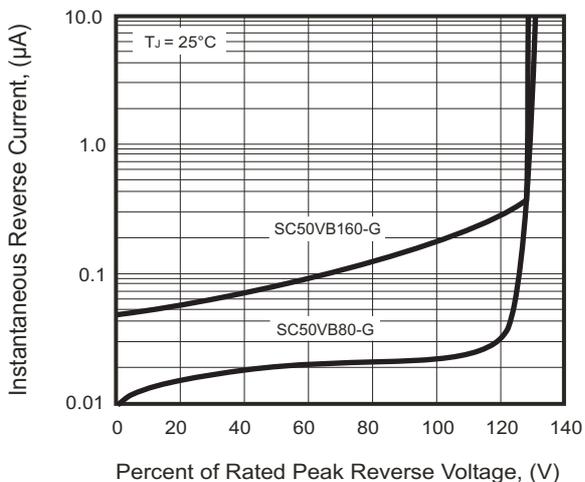
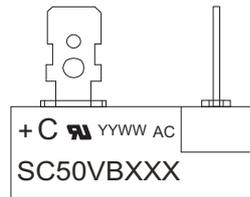


Fig.4 - Typical Reverse Characteristics



## Marking Code

| Part Number | Marking code |
|-------------|--------------|
| SC50VB80-G  | SC50VB80     |
| SC50VB160-G | SC50VB160    |



**C = Compchip Logo**

**YY WW**

↓ → Weeks of the year  
A.D. year latter two figures

**XXX = Product type marking code**

## Standard Packaging

| Case Type | BULK PACK      |                   |
|-----------|----------------|-------------------|
|           | BOX<br>( pcs ) | CARTON<br>( pcs ) |
| SCVB      | 25             | 100               |