

# S50VB80

Bridge Diodes  
800V, 50A

**Feature**

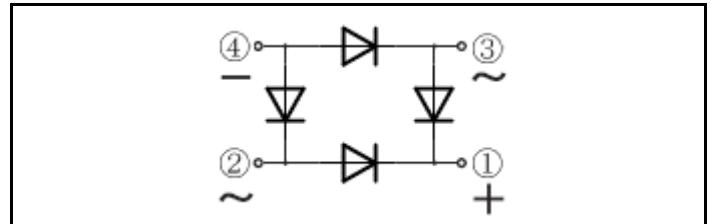
- Faston Terminal
- UL E142422
- Pb free terminal
- RoHS:Yes

**OUTLINE**

Package (House Name): S50VB



**Equivalent circuit**



**Absolute Maximum Ratings** (unless otherwise specified : Tc=25°C)

| Item                            | Symbol           | Conditions   | Ratings    | Unit             |
|---------------------------------|------------------|--|------------|------------------|
| Storage temperature             | Tstg             |  | -40 to 150 | °C               |
| Junction temperature            | Tj               |  | -40 to 150 | °C               |
| Repetitive peak reverse voltage | VRRM             |  | 800        | V                |
| Average forward current         | IF(AV)           | 50Hz sine wave, Resistance load, With heatsink, Tc=95°C    | 50         | A                |
| Surge forward current           | IFSM             | 50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C | 500        | A                |
| Current squared time            | I <sup>2</sup> t | 1ms ≤ tp < 10ms, Tj=25°C, per diode                        | 800        | A <sup>2</sup> s |
| Dielectric strength             | Vdis             | Terminals to case, AC 1 minute                             | 2          | kV               |
| Mounting torque                 | TOR              | (Recommended torque : 0.6N·m)                              | 0.8        | N·m              |

※ : See the original Specifications

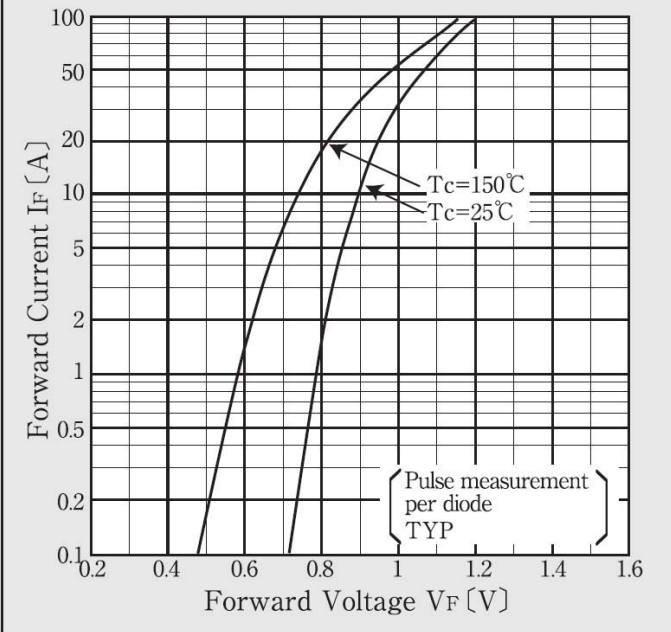
**Electrical Characteristics** (unless otherwise specified : Tc=25°C)

| Item               | Symbol               | Conditions   | Ratings |     |      | Unit |
|--------------------|----------------------|--|---------|-----|------|------|
|                    |                      |  | MIN     | TYP | MAX  |      |
| Forward voltage    | V <sub>F</sub>       | I <sub>F</sub> =25A, Pulse measurement, per diode  |         |     | 1.05 | V    |
| Reverse current    | I <sub>R</sub>       | V <sub>R</sub> =800V, Pulse measurement, per diode |         |     | 10   | μA   |
| Thermal resistance | R <sub>th(j-c)</sub> | Junction to case, With heatsink                    |         |     | 0.5  | °C/W |

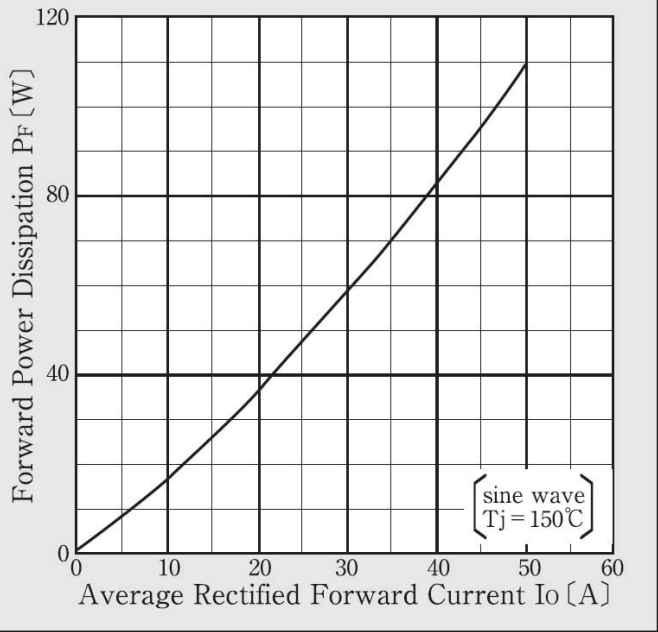
\* : See the original Specifications

# CHARACTERISTIC DIAGRAMS

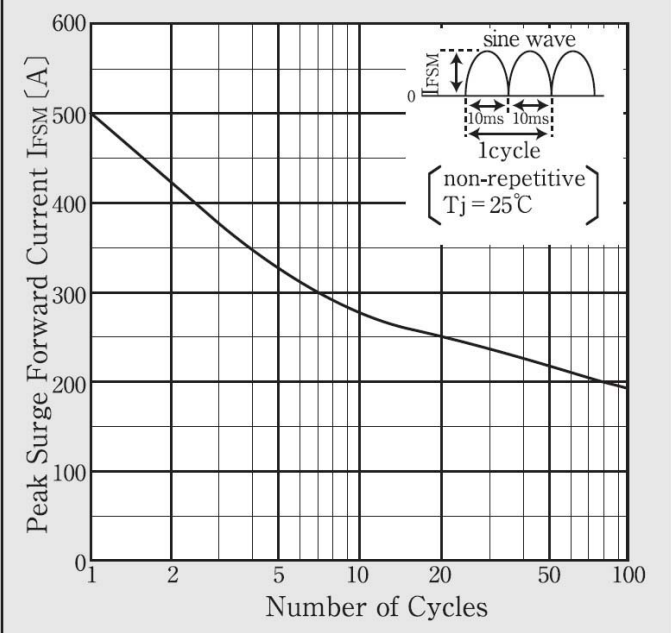
### Forward Voltage



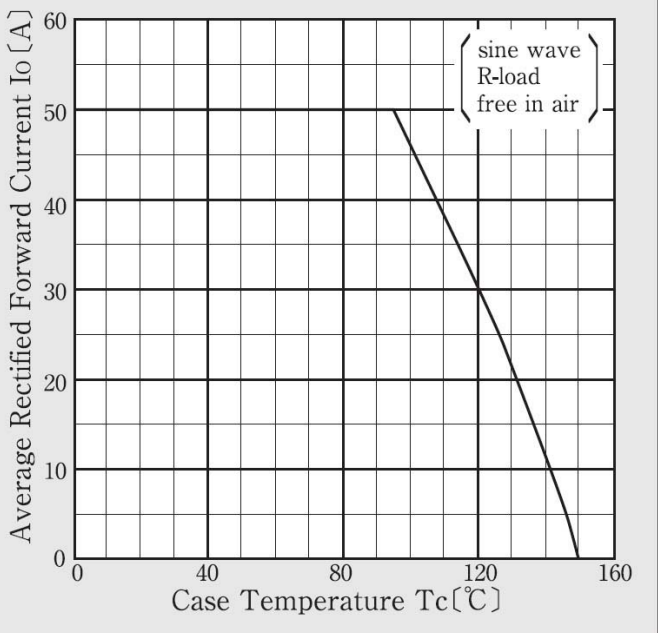
### Forward Power Dissipation



### Peak Surge Forward Current Capability

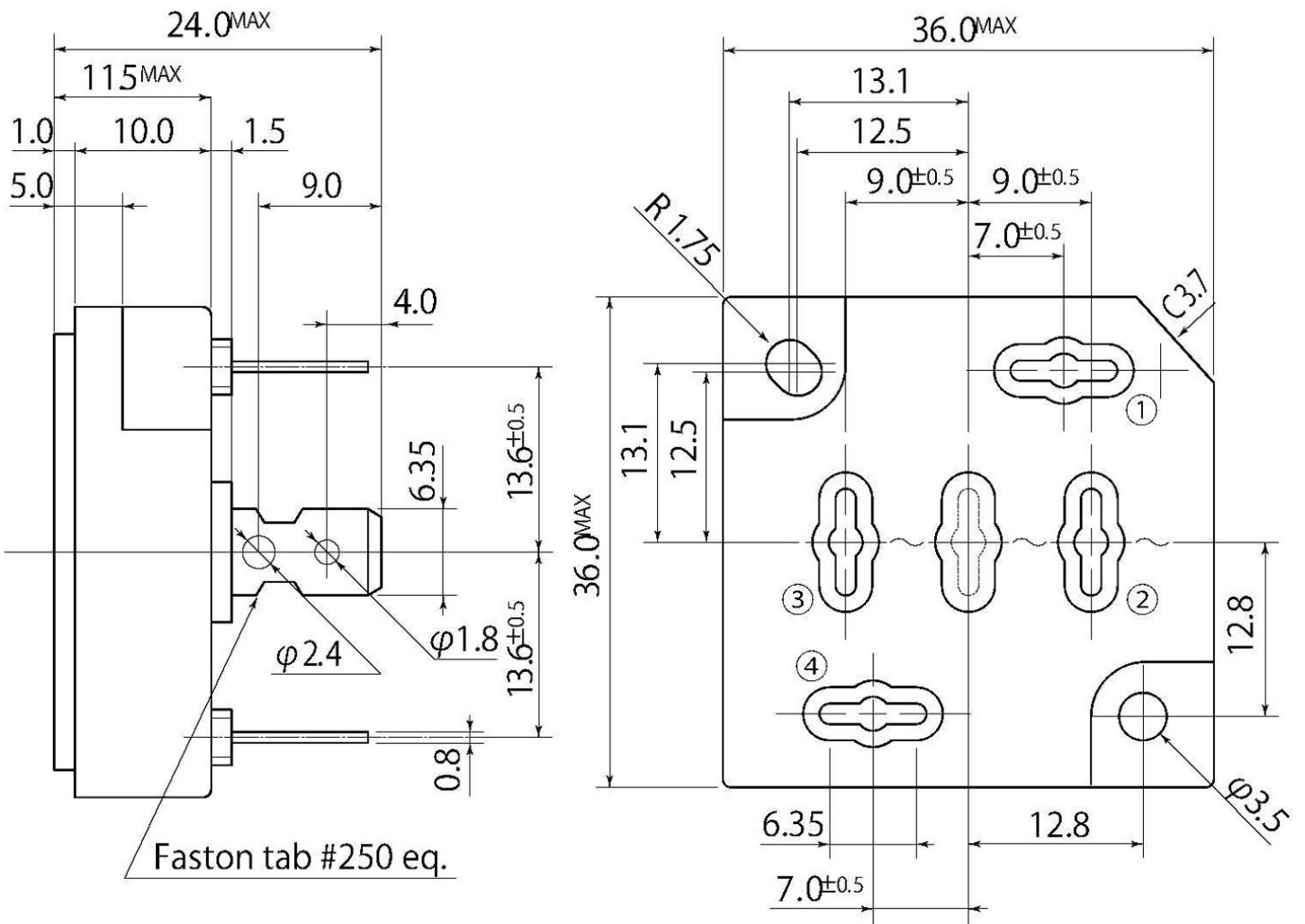


### Derating Curve



E9

|            |       |
|------------|-------|
| JEDEC Code | -     |
| JEITA Code | -     |
| House Name | S50VB |



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