

# SHINDENGEN

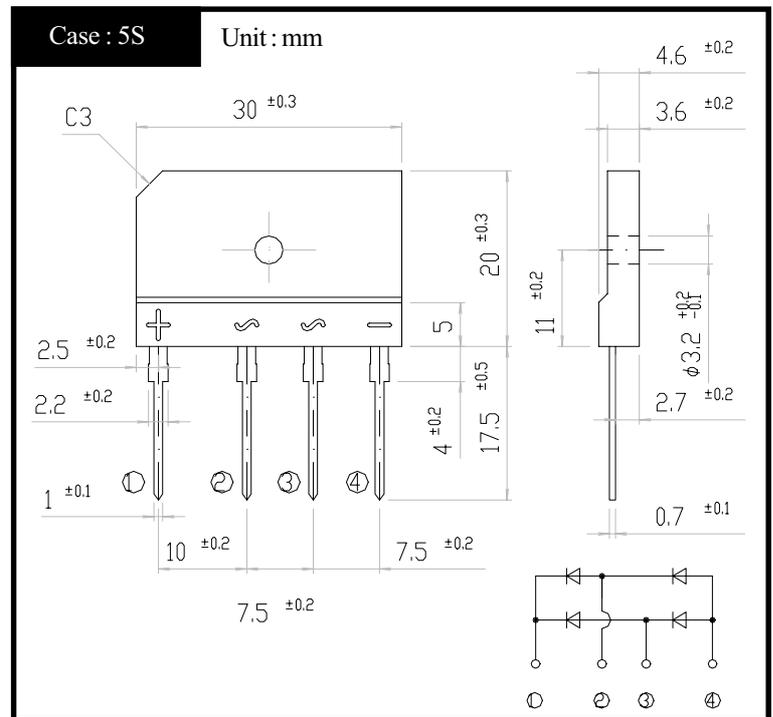
## General Purpose Rectifiers

SIL Bridges

# D6SB60L

## 600V 6A

### OUTLINE DIMENSIONS



### RATINGS

● Absolute Maximum Ratings (If not specified  $T_I=25^{\circ}\text{C}$ )

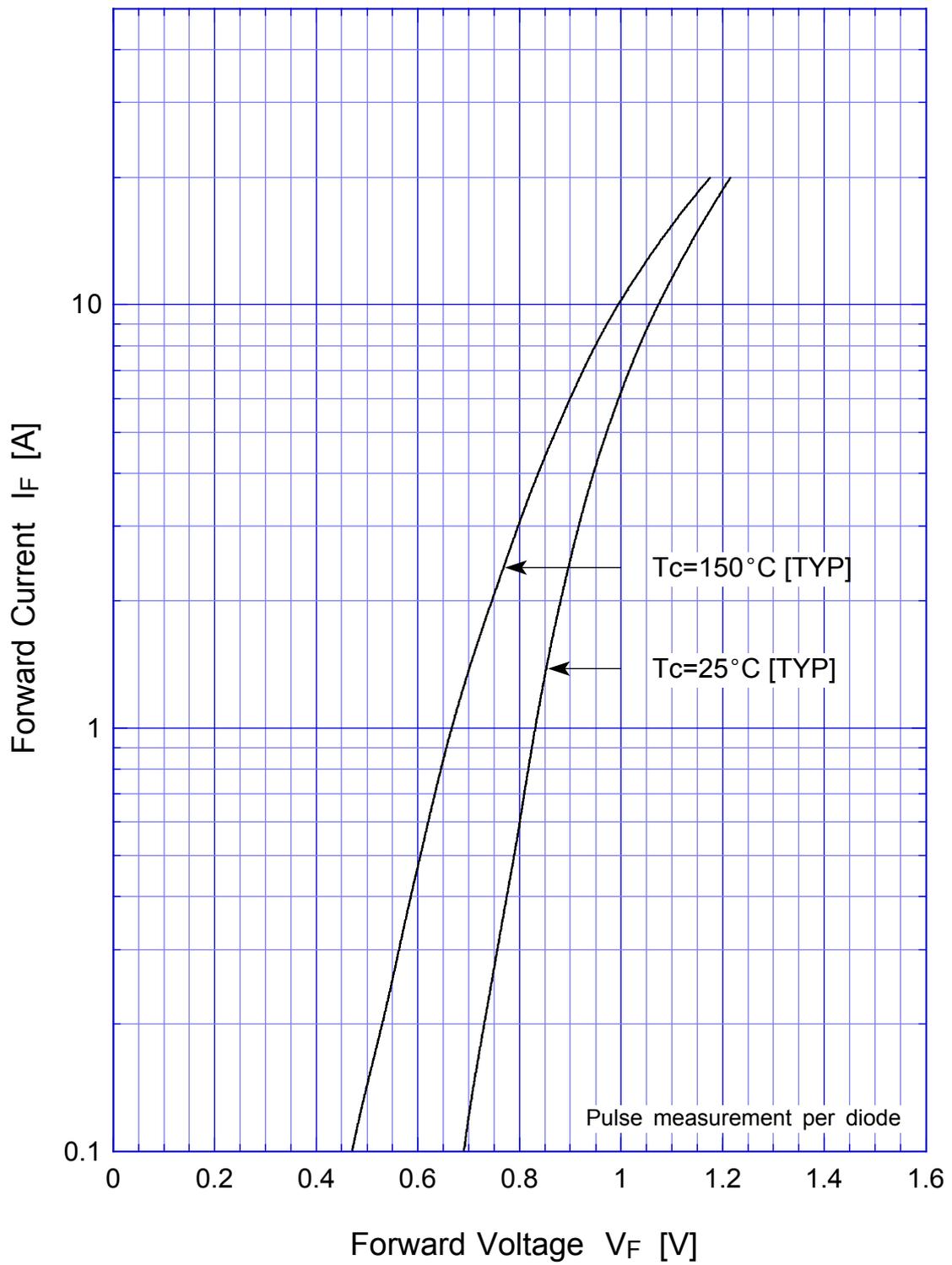
| Item                              | Symbol    | Conditions   | Ratings | Unit                 |
|-----------------------------------|-----------|--|---------|----------------------|
| Storage Temperature               | $T_{stg}$ |  | -40~150 | $^{\circ}\text{C}$   |
| Operating Junction Temperature    | $T_j$     |  | 150     | $^{\circ}\text{C}$   |
| Maximum Reverse Voltage           | $V_{RM}$  |  | 600     | V                    |
| Average Rectified Forward Current | $I_O$     | 50Hz sine wave, R-load With heatsink $T_c=112^{\circ}\text{C}$             | 6       | A                    |
|                                   |           | 50Hz sine wave, R-load Without heatsink $T_a=25^{\circ}\text{C}$           | 2.8     |                      |
| Peak Surge Forward Current        | $I_{FSM}$ | 50Hz sine wave, Non-repetitive 1cycle peak value, $T_I=25^{\circ}\text{C}$ | 170     | A                    |
| Current Squared Time              | $I^2t$    | $2\text{ms} \leq t < 10\text{ms}$ $T_j = 25^{\circ}\text{C}$               | 90      | $\text{A}^2\text{s}$ |
| Dielectric Strength               | $V_{dis}$ | Terminals to case, AC 1 minute   | 2.5     | kV                   |
| Mounting Torque                   | TOR       | (Recommended torque : 0.5N·m)  | 0.8     | N·m                  |

● Electrical Characteristics (If not specified  $T_I=25^{\circ}\text{C}$ )

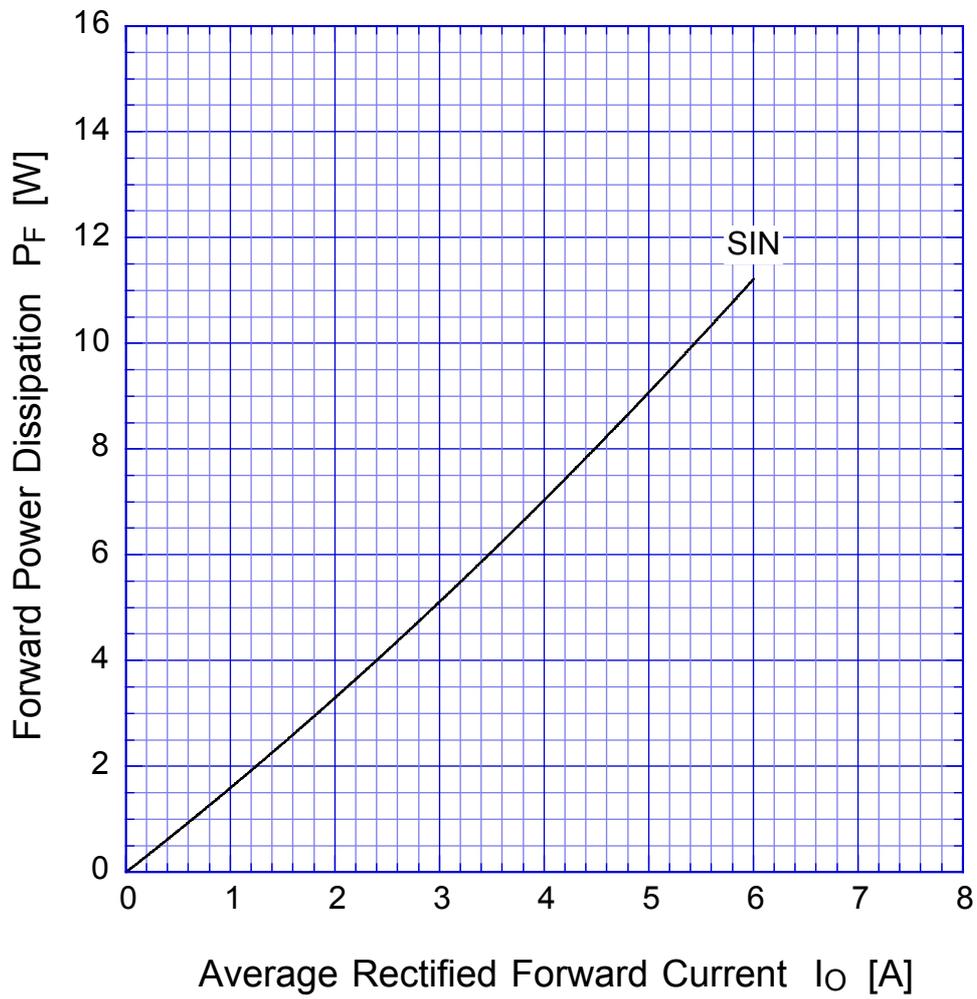
| Item                  | Symbol        | Conditions  | Ratings  | Unit                        |
|-----------------------|---------------|---|----------|-----------------------------|
| Forward Voltage       | $V_F$         | $I_F=3\text{A}$ , Pulse measurement, Rating of per diode  | Max.1.05 | V                           |
| Reverse Current       | $I_R$         | $V_R=V_{RM}$ , Pulse measurement, Rating of per diode     | Max.10   | $\mu\text{A}$               |
| Reverse Recovery Time | $t_{rr}$      | $I_F=0.1\text{A}$ , $I_R=0.1\text{A}$ Rating of per diode | Max.10   | $\mu\text{s}$               |
| Thermal Resistance    | $\theta_{jc}$ | junction to case With heatsink                            | Max.3.4  | $^{\circ}\text{C}/\text{W}$ |
|                       | $\theta_{jl}$ | junction to lead Without heatsink                         | Max.5    |                             |
|                       | $\theta_{ja}$ | junction to ambient Without heatsink                      | Max.26   |                             |

D6SB60L

Forward Voltage



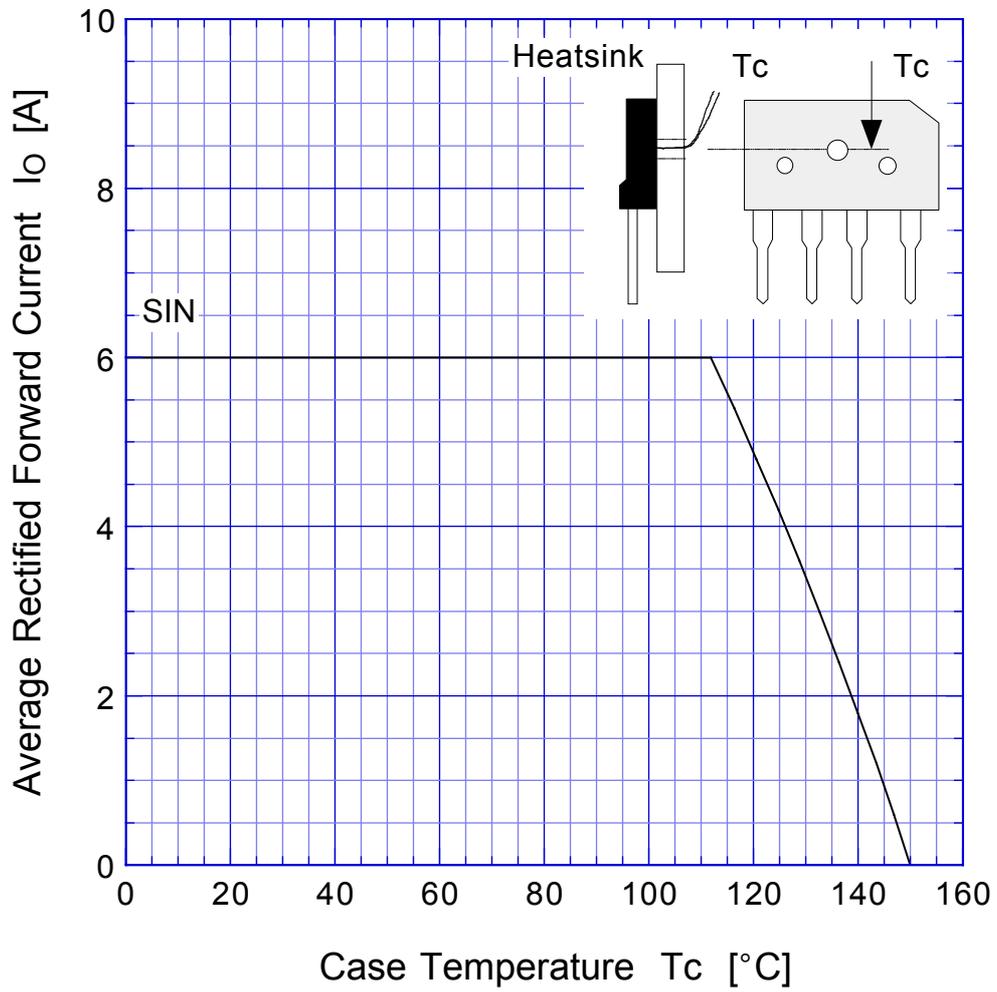
## D6SB60L Forward Power Dissipation



$T_j = 150^\circ\text{C}$   
Sine wave

# D6SB60L

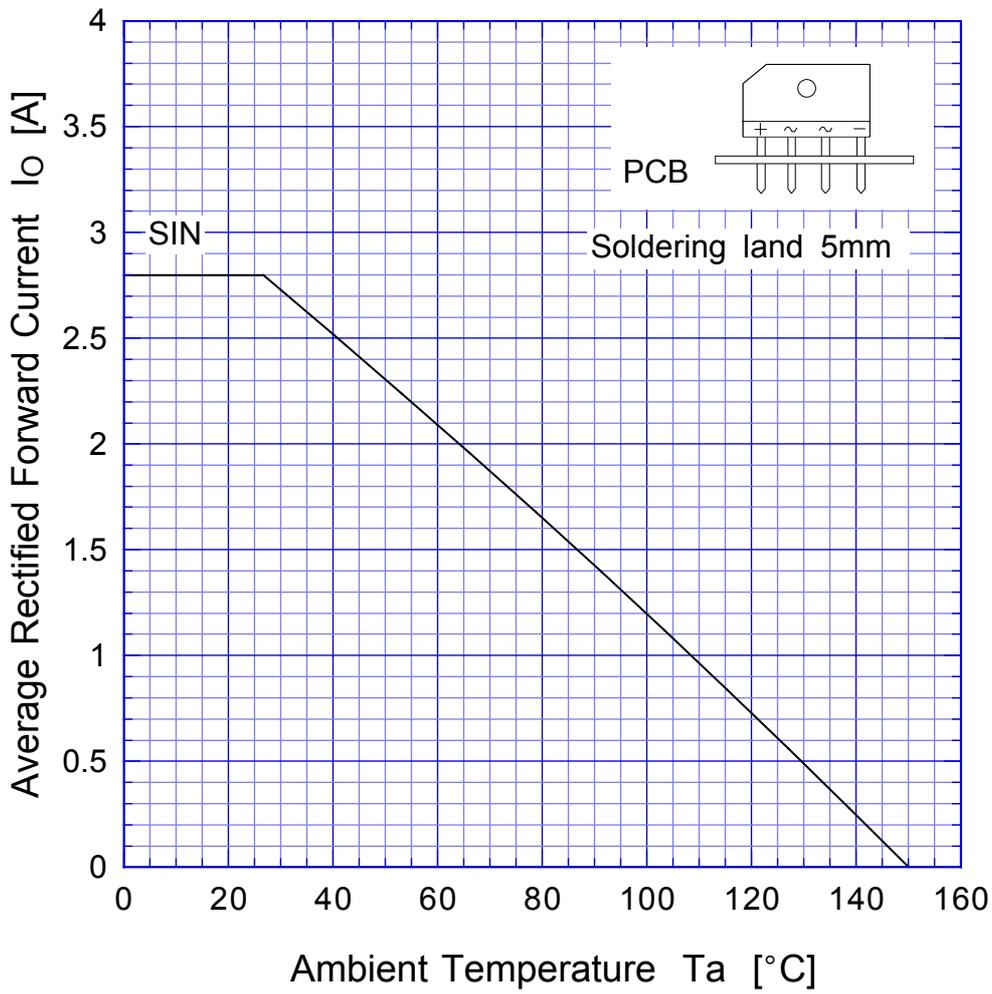
# Derating Curve



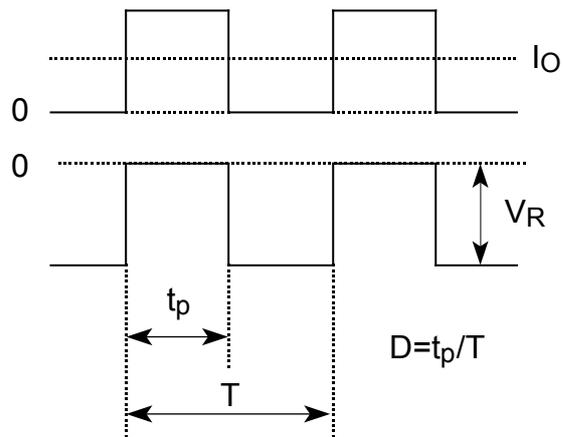
Sine wave  
R-load  
with heatsink

# D6SB60L

# Derating Curve



$V_R = 600V$



# D6SB60L

## Peak Surge Forward Capability

