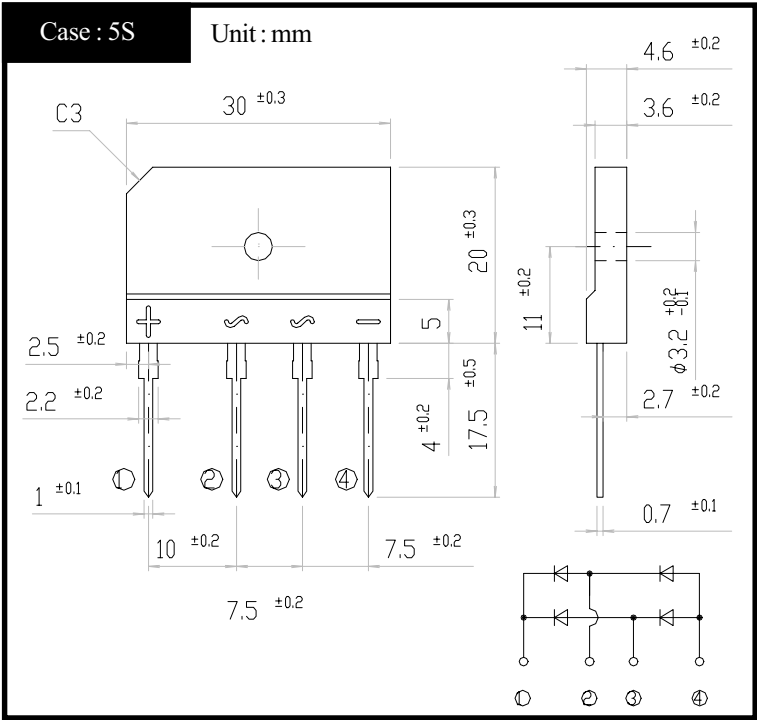


D6SB60L

600V 6A

OUTLINE DIMENSIONS



RATINGS

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

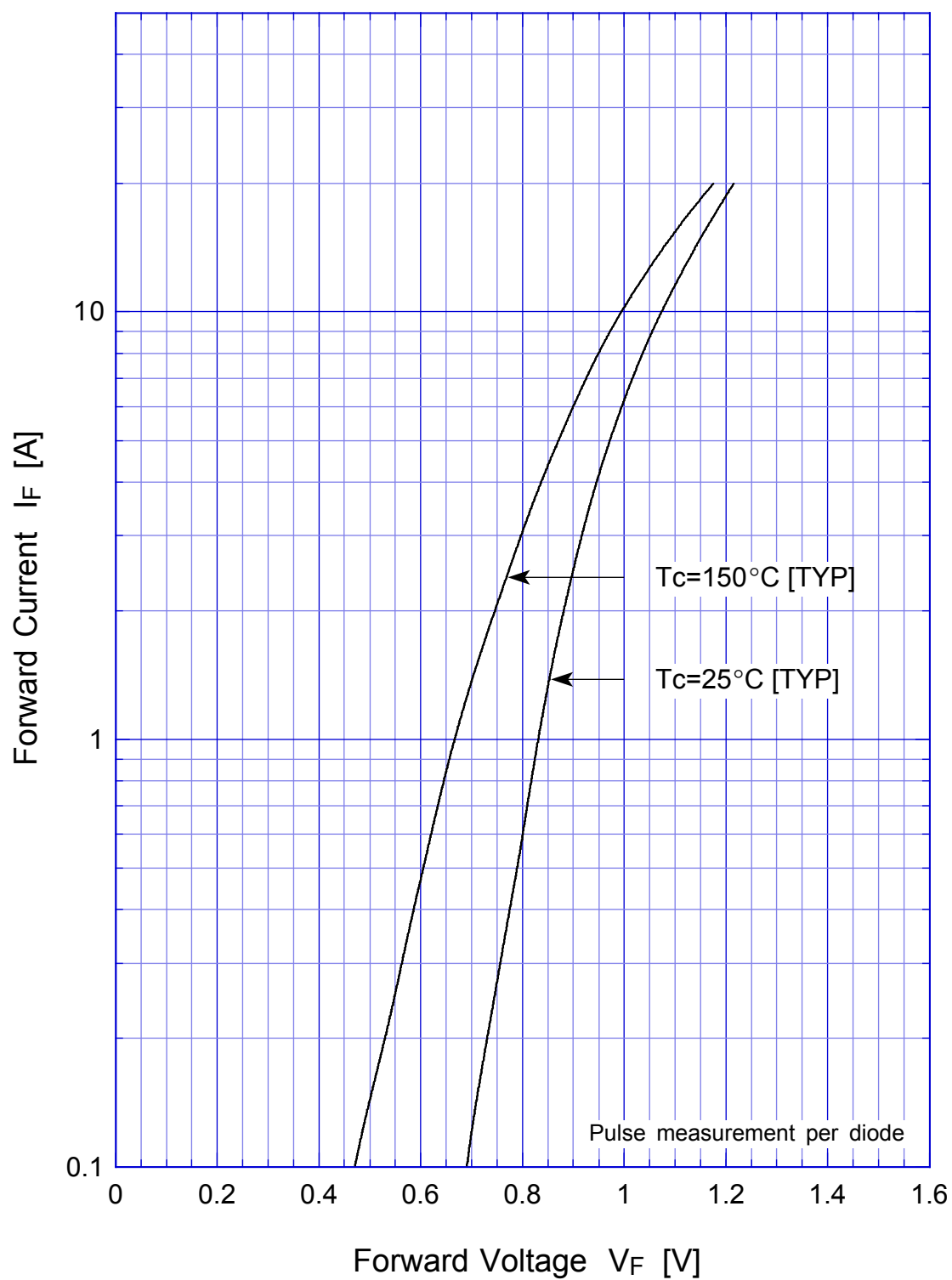
| Item                              | Symbol           | Conditions                                                                 | Ratings | Unit                 |
|-----------------------------------|------------------|----------------------------------------------------------------------------|---------|----------------------|
| Storage Temperature               | $T_{\text{stg}}$ |                                                                            | -40~150 | $^{\circ}\text{C}$   |
| Operating Junction Temperature    | $T_j$            |                                                                            | 150     | $^{\circ}\text{C}$   |
| Maximum Reverse Voltage           | $V_{\text{RM}}$  |                                                                            | 600     | V                    |
| Average Rectified Forward Current | $I_{\text{O}}$   | 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        | $I_{\text{FSM}}$ | 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               | $V_{\text{dis}}$ | 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  $T_I=25^{\circ}\text{C}$ )

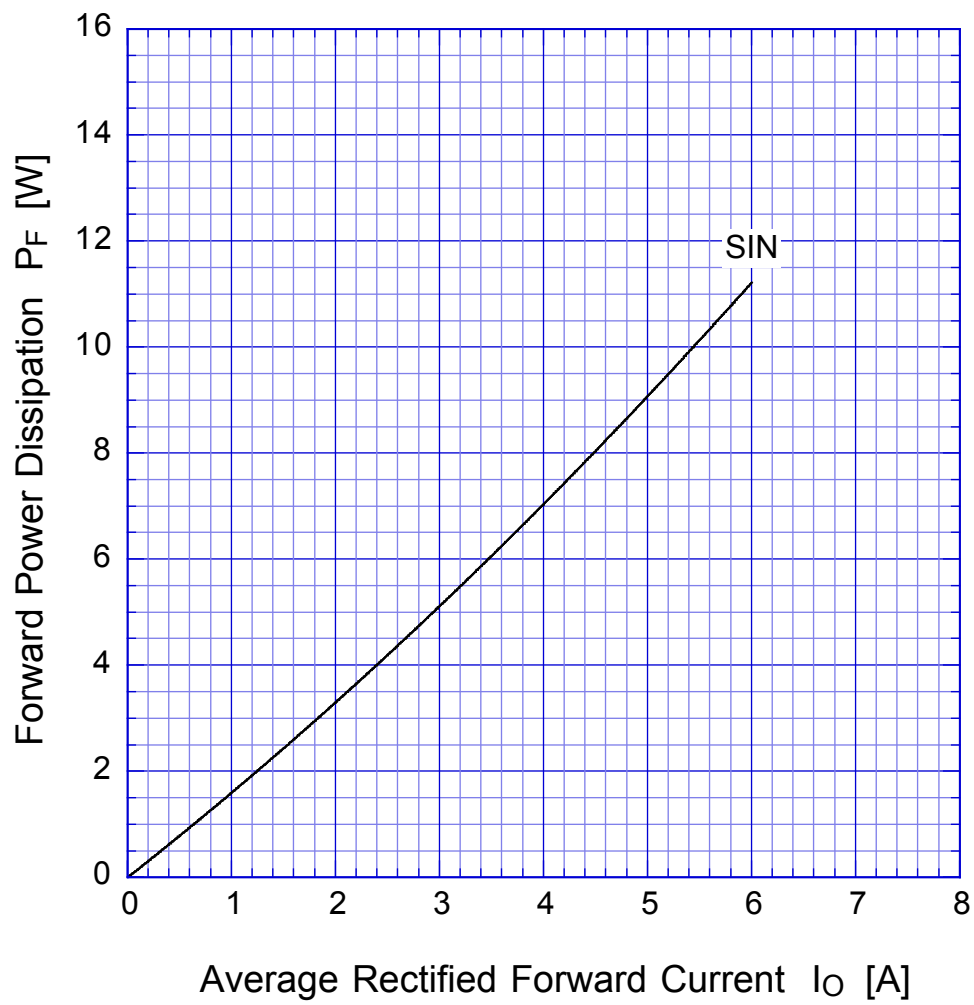
| Item                  | Symbol               | Conditions                                                                  | Ratings  | Unit                 |
|-----------------------|----------------------|-----------------------------------------------------------------------------|----------|----------------------|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

D6SB60L

Forward Voltage



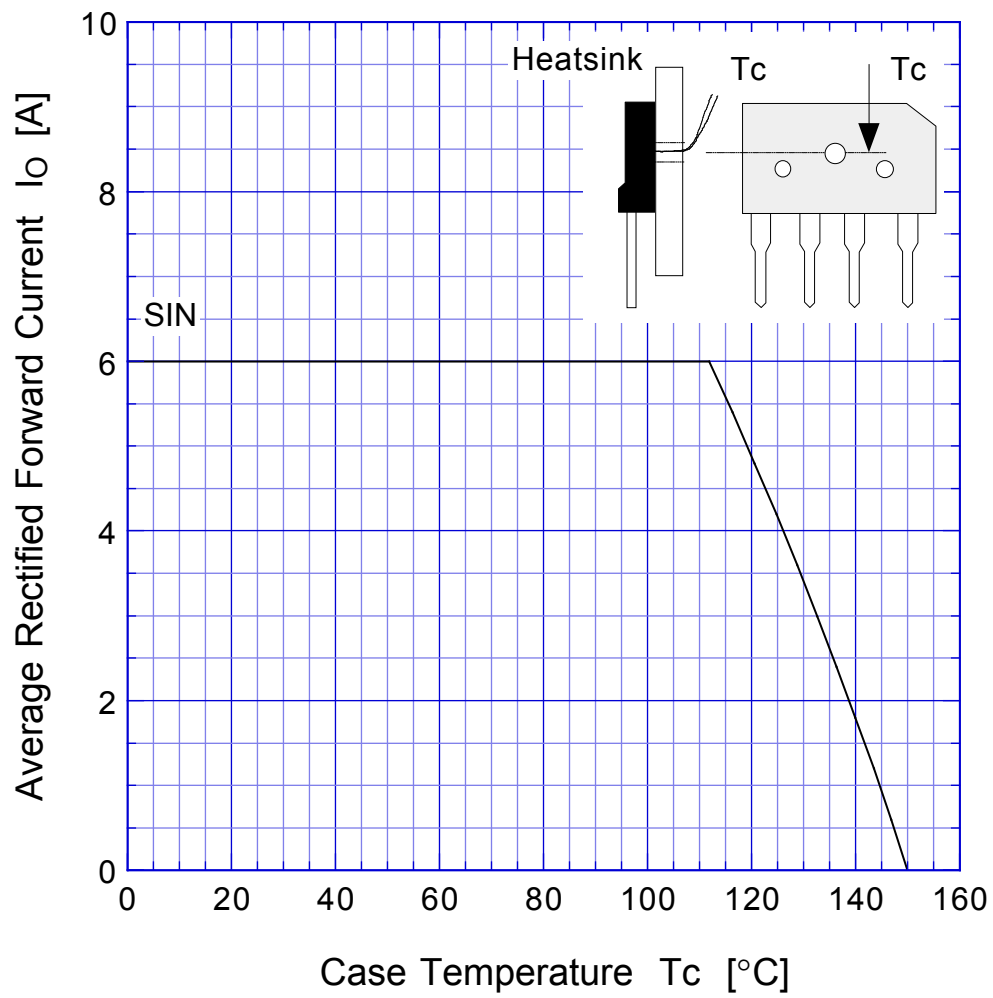
## D6SB60L Forward Power Dissipation



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

# D6SB60L

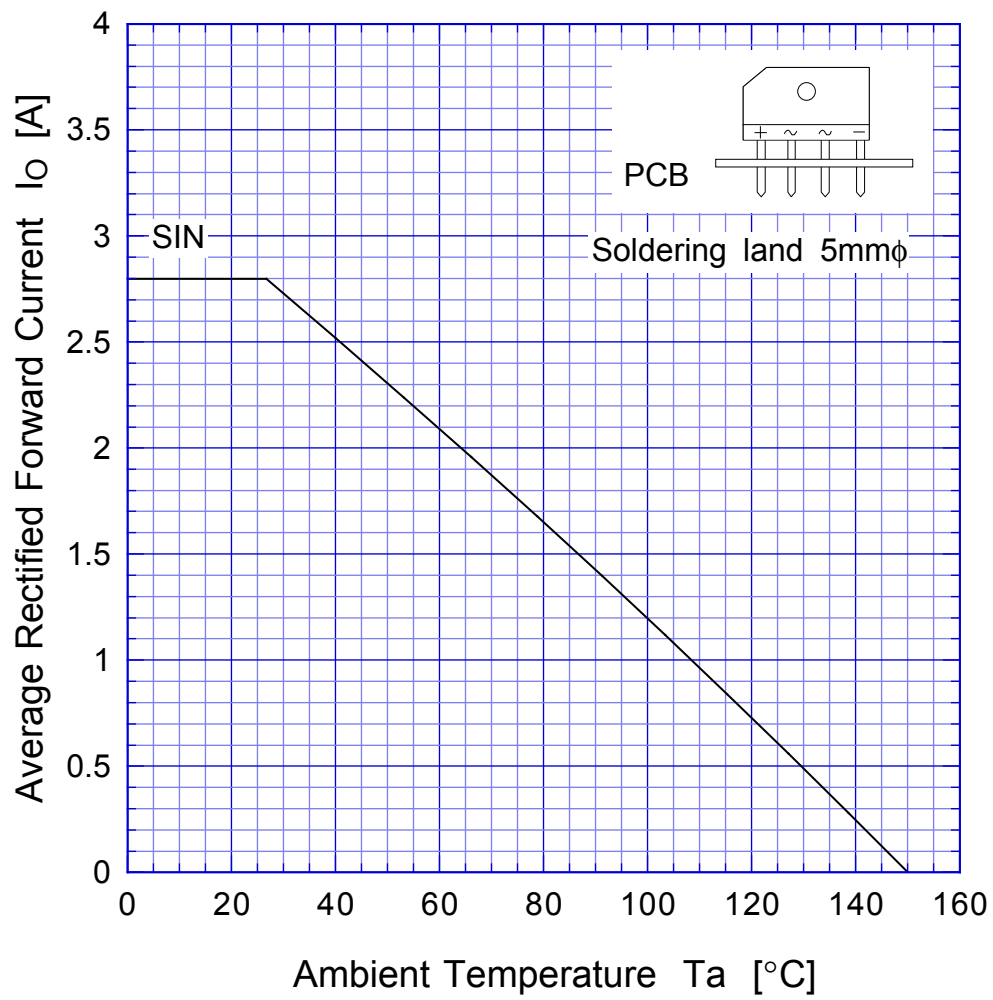
## Derating Curve



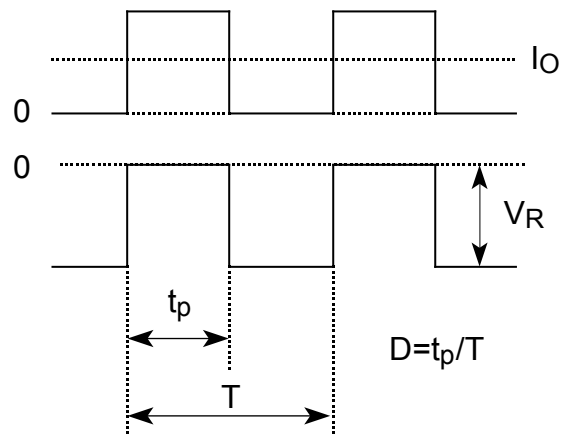
Sine wave  
R-load  
with heatsink

# D6SB60L

## Derating Curve



$V_R = 600V$



# D6SB60L

## Peak Surge Forward Capability

