

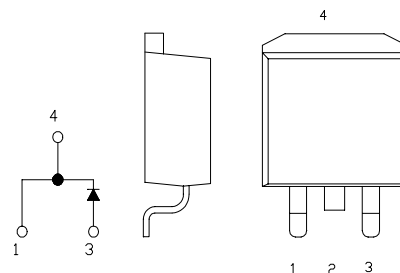
# FRD Type : TSU10A60

## OUTLINE DRAWING

For Power Factor Improvement High Frequency Rectification

### FEATURES

- \* Ultra – Fast Recovery
- \* Low Forward Voltage Drop
- \* Low Power Loss, High Efficiency
- \* High Surge Capability



### Maximum Ratings

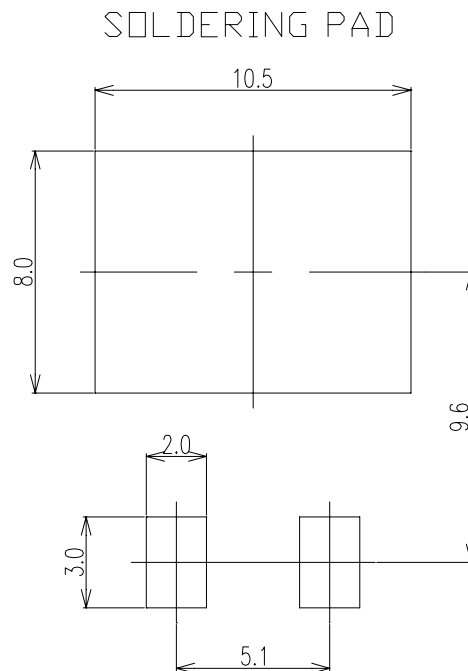
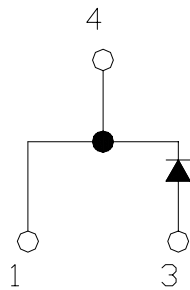
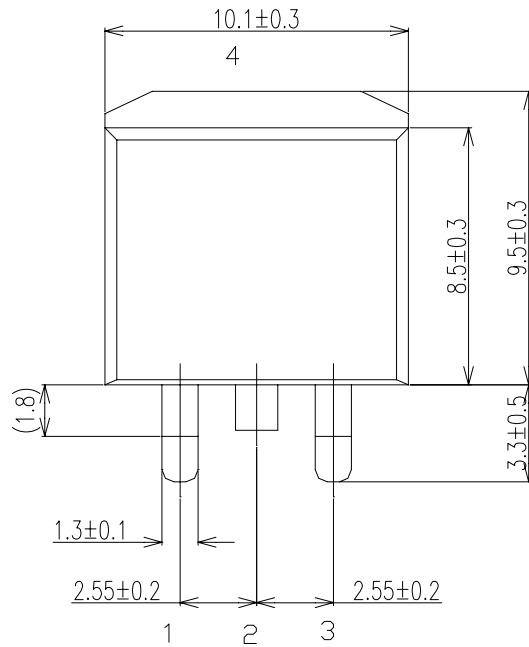
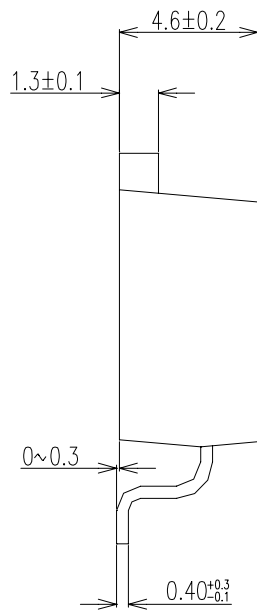
Approx Net Weight:1.45g

| Rating                              | Symbol              | TSU10A60      |                                               |                                        | Unit |
|-------------------------------------|---------------------|---------------|-----------------------------------------------|----------------------------------------|------|
| Repetitive Peak Reverse Voltage     | V <sub>RRM</sub>    | 600           |                                               |                                        | V    |
| Average Rectified Output Current    | I <sub>O</sub>      | 10            | Tc=60℃                                        | 50 Hz Half Sine Wave<br>Resistive Load | A    |
| RMS Forward Current                 | I <sub>F(RMS)</sub> | 15.7          |                                               |                                        | A    |
| Surge Forward Current               | I <sub>FSM</sub>    | 110           | 50 Hz Half Sine Wave,1cycle<br>Non-repetitive |                                        | A    |
| Operating JunctionTemperature Range | T <sub>jw</sub>     | - 40 to + 150 |                                               |                                        | ℃    |
| Storage Temperature Range           | T <sub>stg</sub>    | - 40 to + 150 |                                               |                                        | ℃    |
| Mounting torque                     |                     | 0.5           | Recommended value                             |                                        | N•m  |

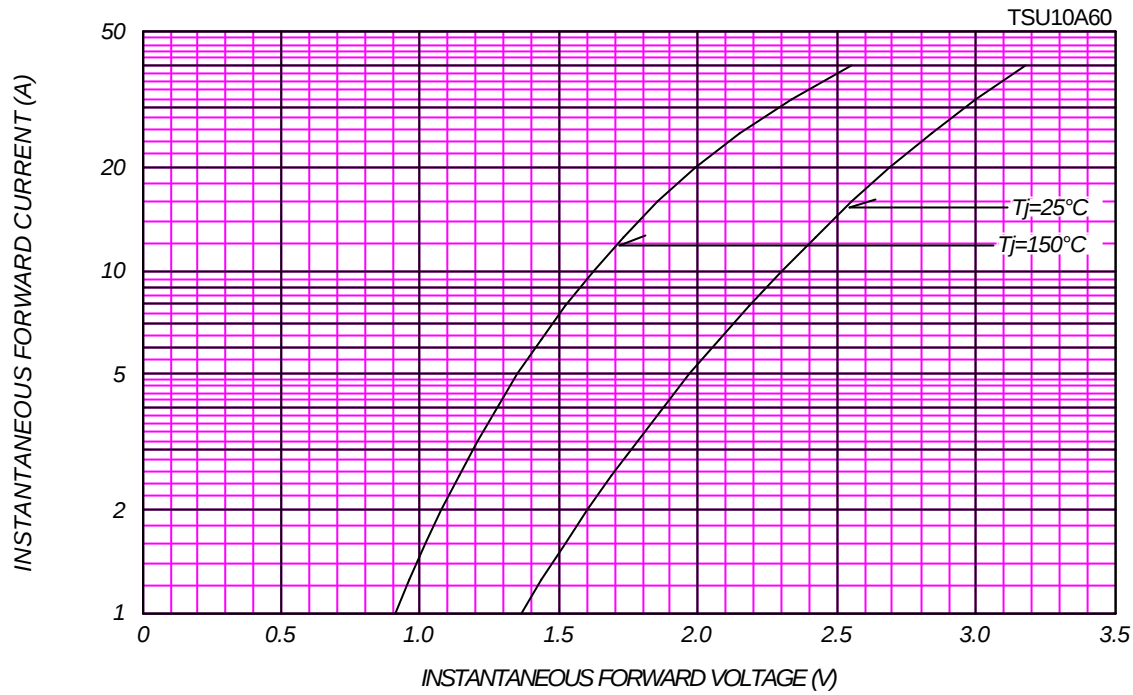
### Electrical • Thermal Characteristics

| Characteristics       | Symbol        | Conditions                                                                           | Min. | Typ. | Max. | Unit                        |
|-----------------------|---------------|--------------------------------------------------------------------------------------|------|------|------|-----------------------------|
| Peak Reverse Current  | $I_{RM}$      | $T_j= 25^{\circ}\text{C}, V_{RM}= V_{RRM}$                                           | -    | -    | 30   | $\mu\text{A}$               |
| Peak Forward Voltage  | $V_{FM}$      | $T_j= 25^{\circ}\text{C}, I_{FM}= 10\text{A}$                                        | -    | 1.9  | 2.3  | V                           |
| Reverse Recovery Time | $t_{rr}$      | $I_{FM}= 10\text{A},$<br>$-di/dt= 50 \text{ A}/\mu\text{s}, T_a= 25^{\circ}\text{C}$ | -    | 30   | 45   | ns                          |
| Thermal Resistance    | $R_{th(j-c)}$ | Junction to Case                                                                     | -    | -    | 4    | $^{\circ}\text{C}/\text{W}$ |

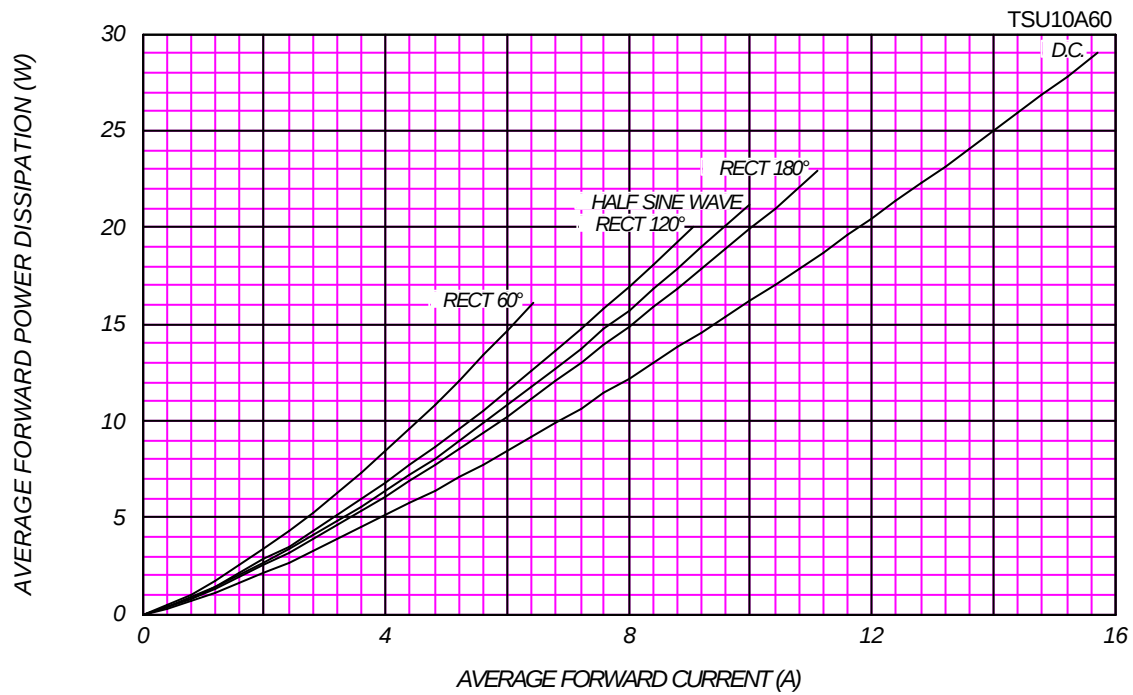
TSU\_ OUTLINE DRAWING (Dimensions in mm)

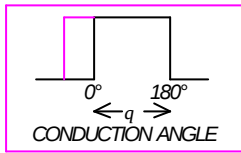


FORWARD CURRENT VS. VOLTAGE

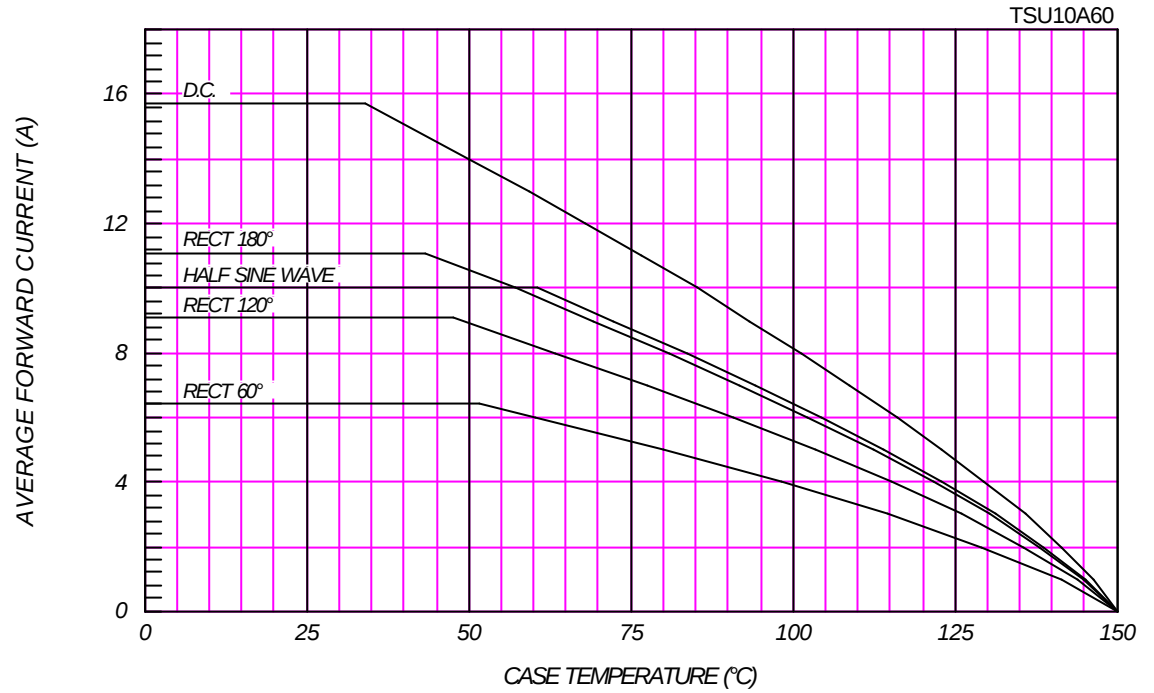


AVERAGE FORWARD POWER DISSIPATION



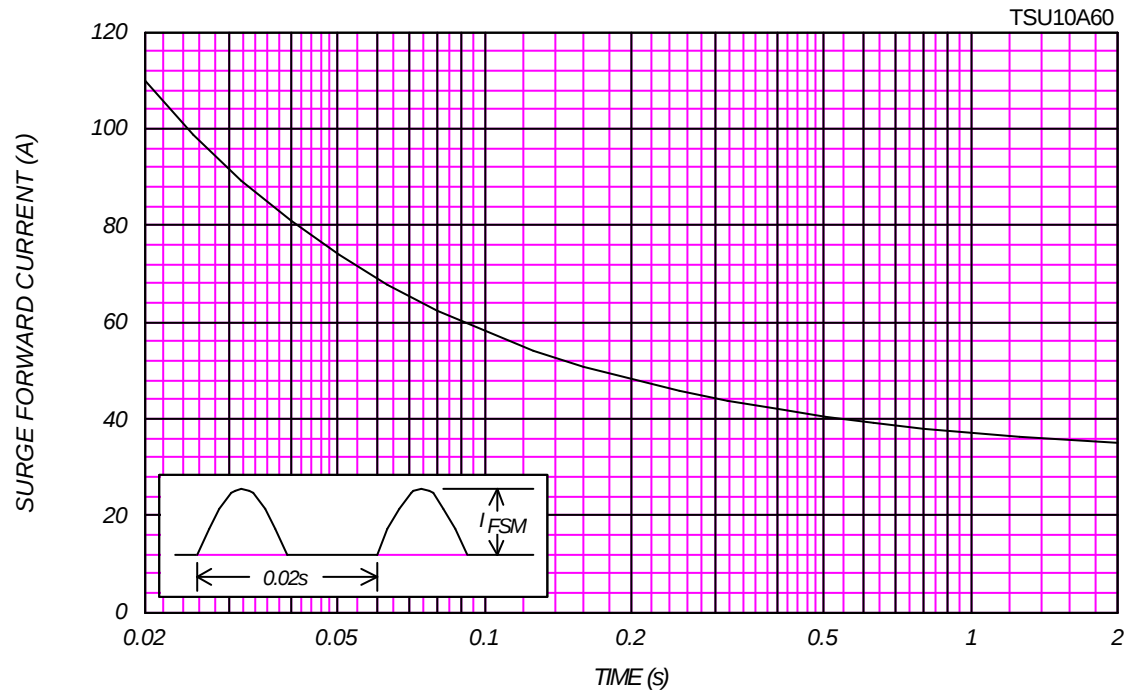


AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



SURGE CURRENT RATINGS

$f=50\text{Hz}$ , Sine Wave, Non-Repetitive, No Load



# *RMS SURGE CURRENT RATINGS*

Ta=40°C, Non-Repetitive, No Load

TSU10A60

