

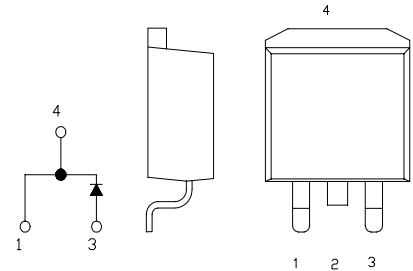
FRD Type : TSU05A60

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 | TSU05A60 | | Unit |
|--------------------------------------|--------------|---------------|--|------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 600 | | V |
| Average Rectified Output Current | I_O | 5 | $T_c=95^\circ\text{C}$ 50 Hz Half Sine Wave Resistive Load | A |
| RMS Forward Current | $I_{F(RMS)}$ | 15.7 | | A |
| Surge Forward Current | I_{FSM} | 70 | 50 Hz Half Sine Wave, 1cycle Non-repetitive | A |
| Operating Junction Temperature Range | T_{jw} | - 40 to + 150 | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 40 to + 150 | | $^\circ\text{C}$ |
| Mounting torque | | 0.5 | Recommended value | N.m |

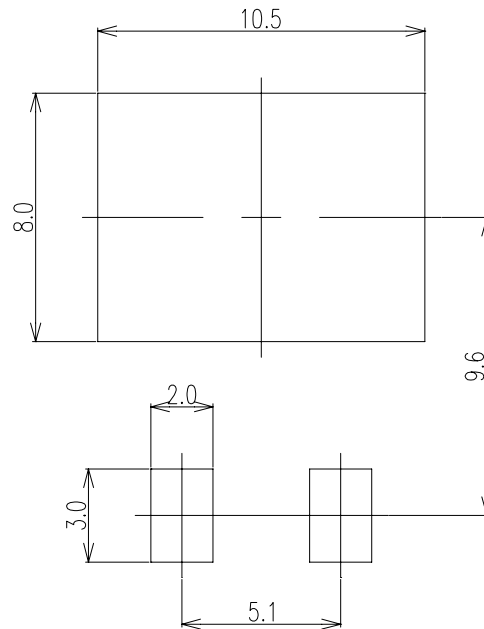
Electrical • Thermal Characteristics

| Characteristics | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|-----------------------|---------------|---|------|------|------|---------------------------|
| Peak Reverse Current | I_{RM} | $T_j= 25^\circ\text{C}$, $V_{RM}= V_{RRM}$ | - | - | 30 | μA |
| Peak Forward Voltage | V_{FM} | $T_j= 25^\circ\text{C}$, $I_{FM}= 5\text{A}$ | - | 1.9 | 2.3 | V |
| Reverse Recovery Time | t_{rr} | $I_{FM}= 5\text{A}$, $-di/dt= 50 \text{ A}/\mu\text{s}$, $T_a= 25^\circ\text{C}$ | - | 25 | 35 | ns |
| Thermal Resistance | $R_{th(j-c)}$ | Junction to Case | - | - | 5 | $^\circ\text{C}/\text{W}$ |

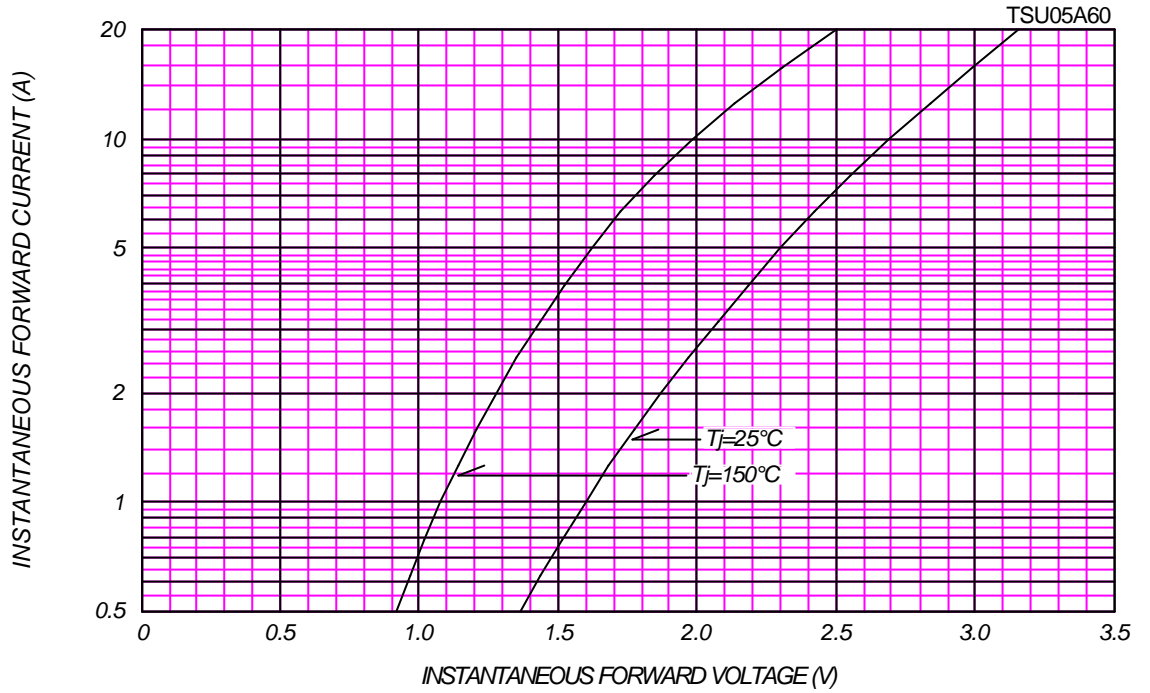
C_T_ OUTLINE DRAWING (Dimensions in mm)



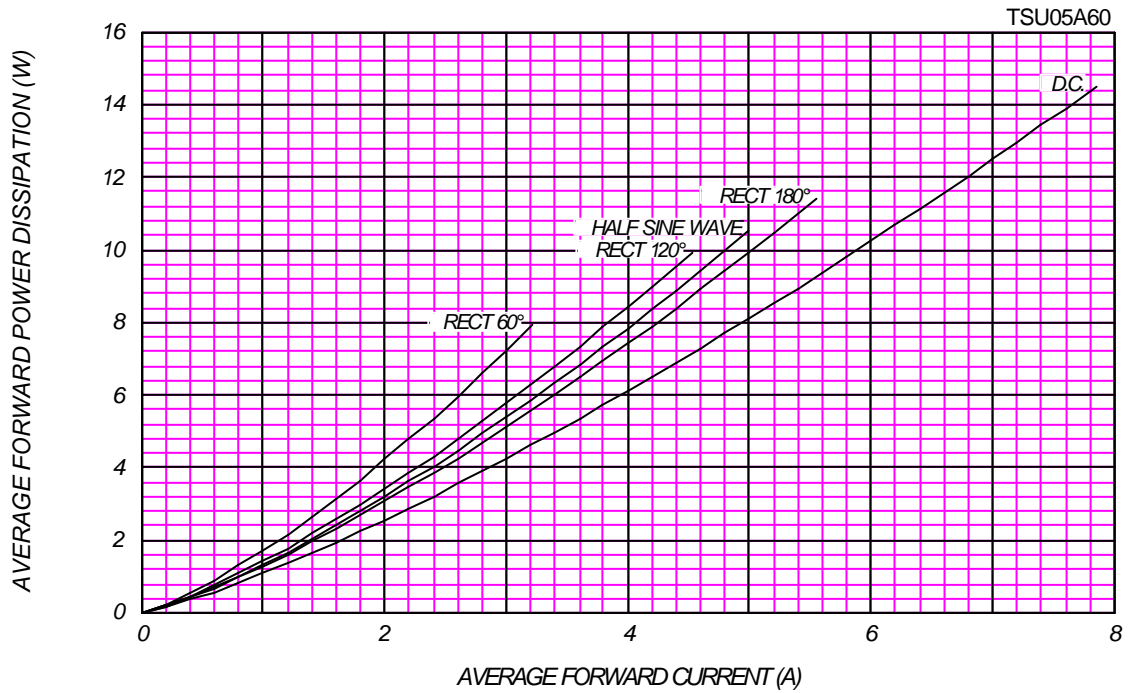
SOLDERING PAD



FORWARD CURRENT VS. VOLTAGE

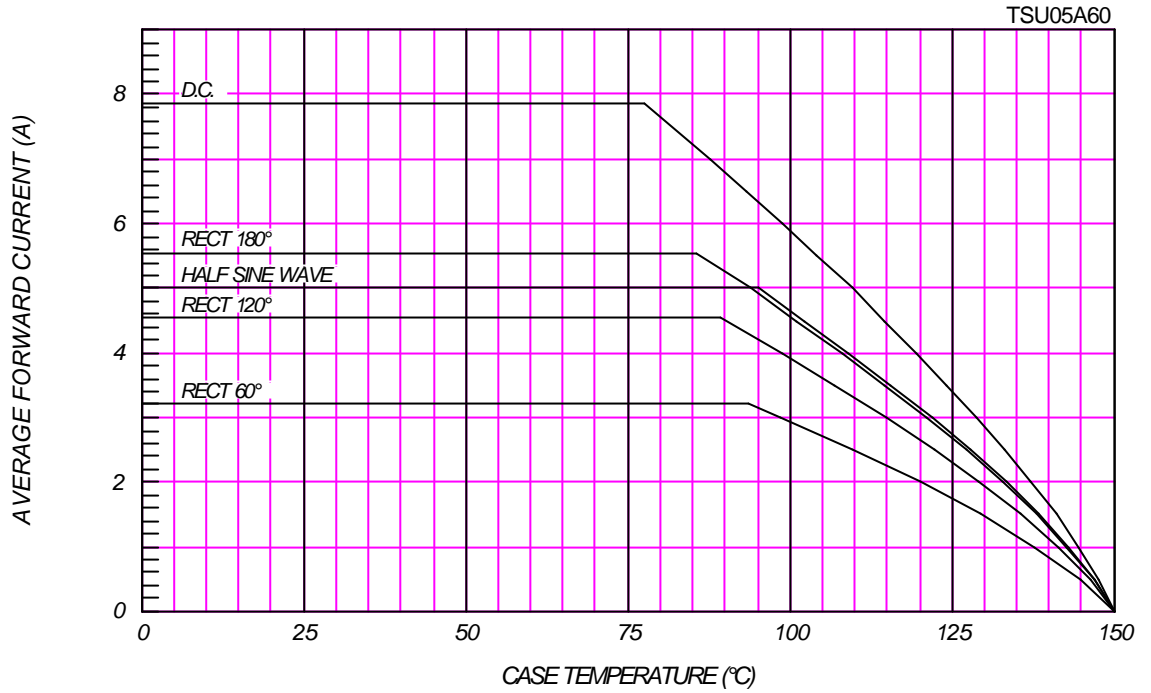


AVERAGE FORWARD POWER DISSIPATION



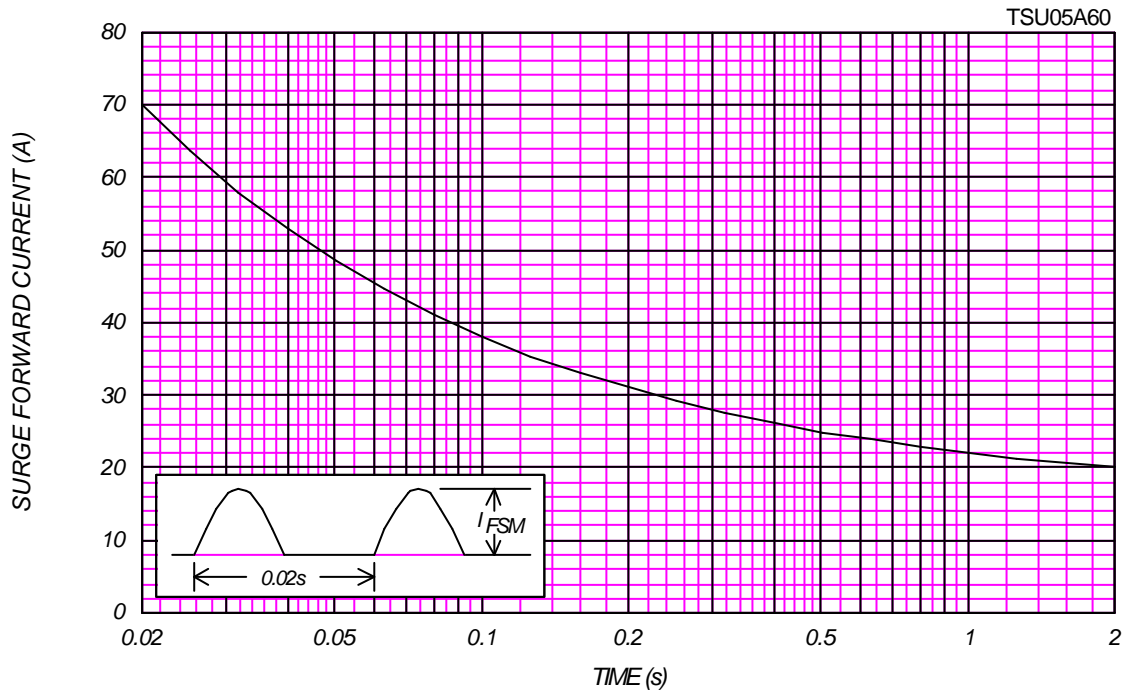


AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



SURGE CURRENT RATINGS

f=50Hz, Sine Wave, Non-Repetitive, No Load



RMS SURGE CURRENT RATINGS

Ta=40°C, Non-Repetitive, No Load

TSU05A60

