Nihon Inter Electronics Corporation

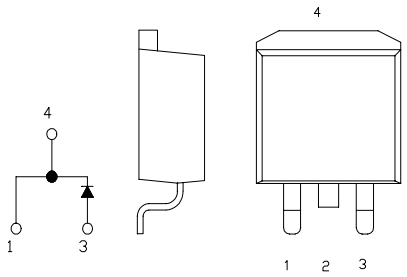
FRD Type : TSU05B60

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

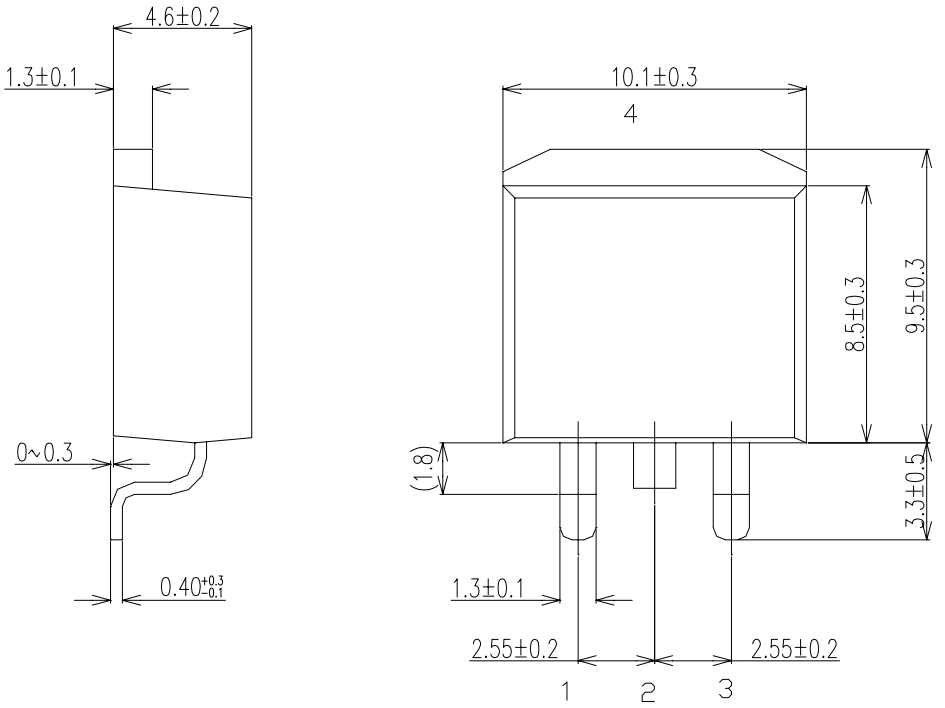
Approx Net Weight:1.45g

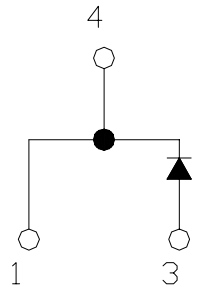
Rating	Symbol	TSU05B60			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	600			V
Average Rectified Output Current	I_O	5	Tc=89℃	50 Hz Half Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	15.7			A
Surge Forward Current	I_{FSM}	60	50 Hz Half Sine Wave,1cycle Non-repetitive		A
Operating JunctionTemperature Range	Tjw	- 40 to + 150			℃
Storage Temperature Range	Tstg	- 40 to + 150			℃
Mounting torque		0.5	Recommended value		N•m

Electrical • Thermal Characteristics

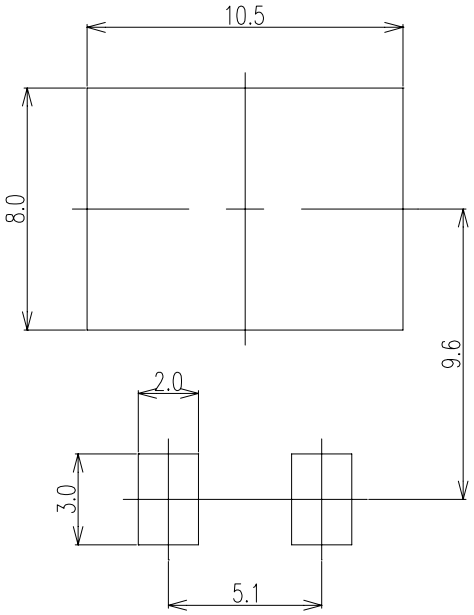
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	Tj= 25℃, V_{RM}= V_{RRM}	-	-	30	μA
Peak Forward Voltage	V_{FM}	Tj= 25℃, I_{FM}= 5A	-	2.3	2.7	V
Reverse Recovery Time	trr	I_{FM}= 5A, -di/dt= 50 A/μs, Ta= 25℃	-	19	30	ns
Thermal Resistance	Rth(j-c)	Junction to Case	-	-	5	℃/W

TSU_ OUTLINE DRAWING (Dimensions in mm)

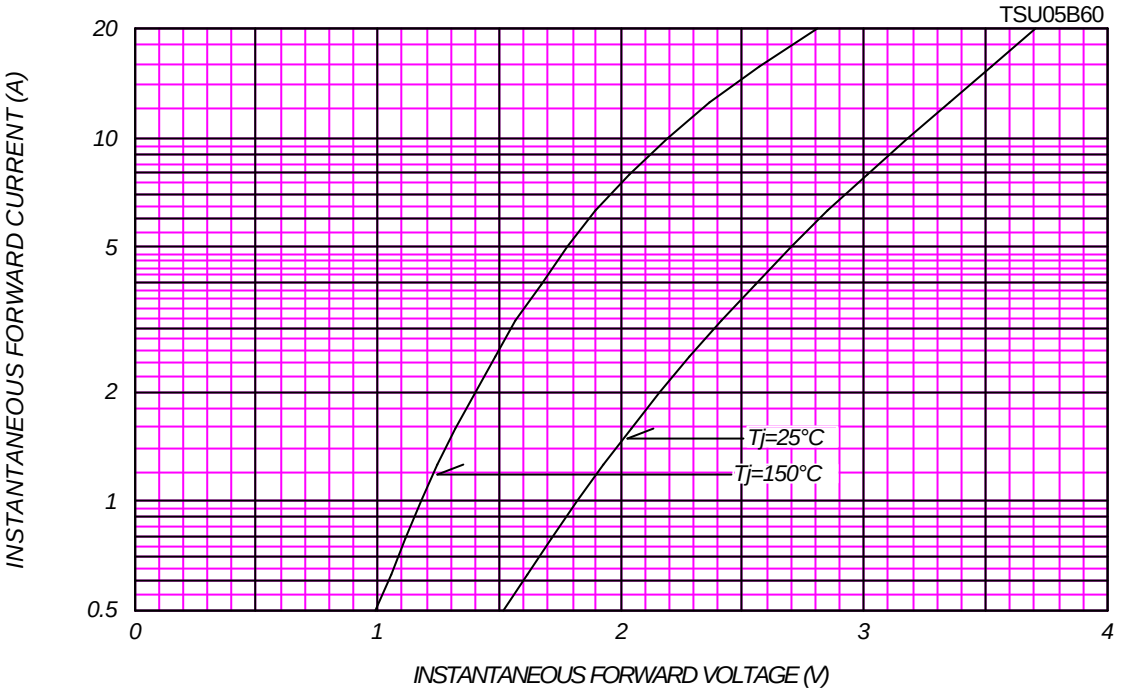


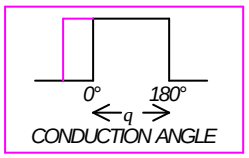


SOLDERING PAD

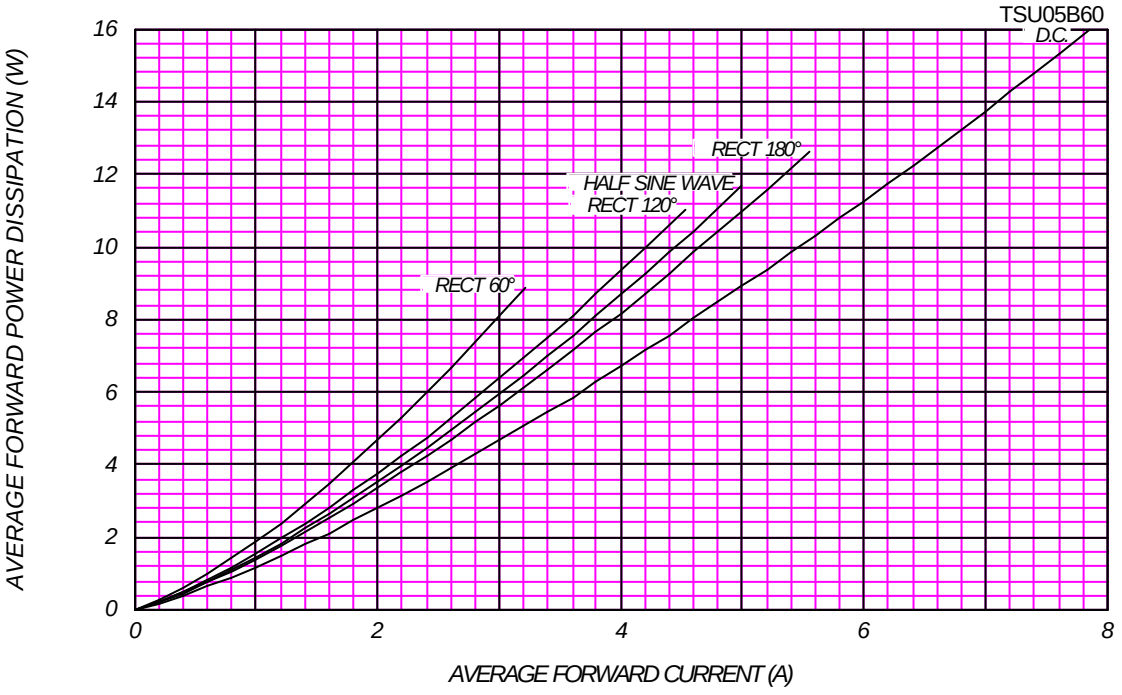


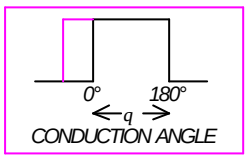
FORWARD CURRENT VS. VOLTAGE



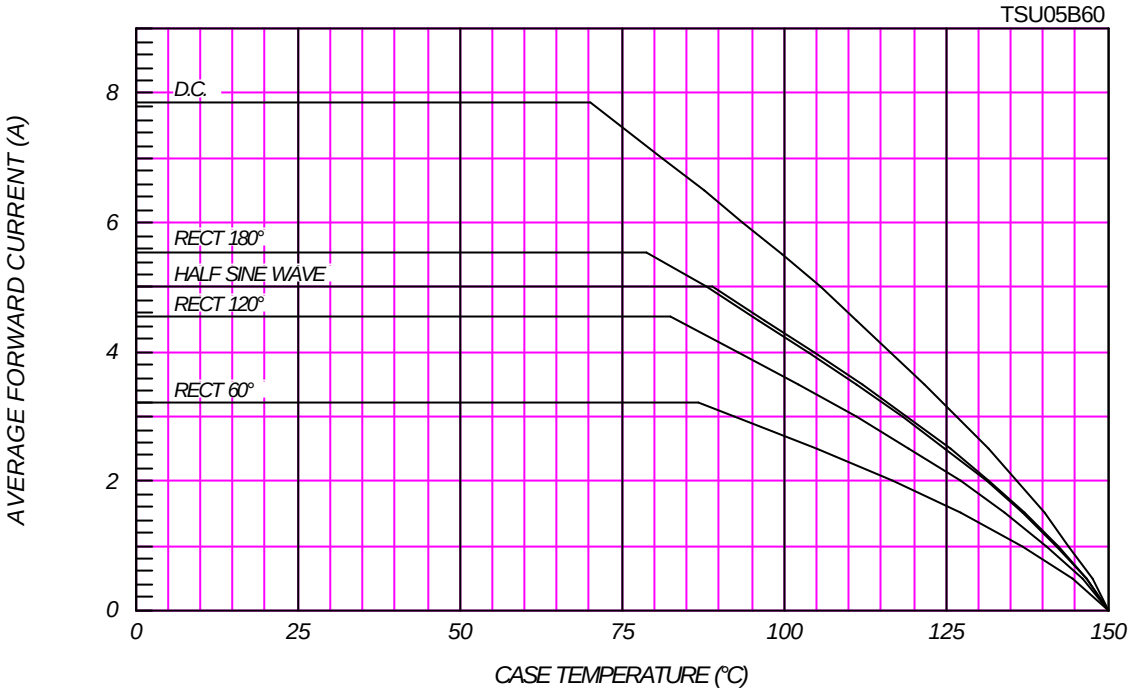


AVERAGE FORWARD POWER DISSIPATION



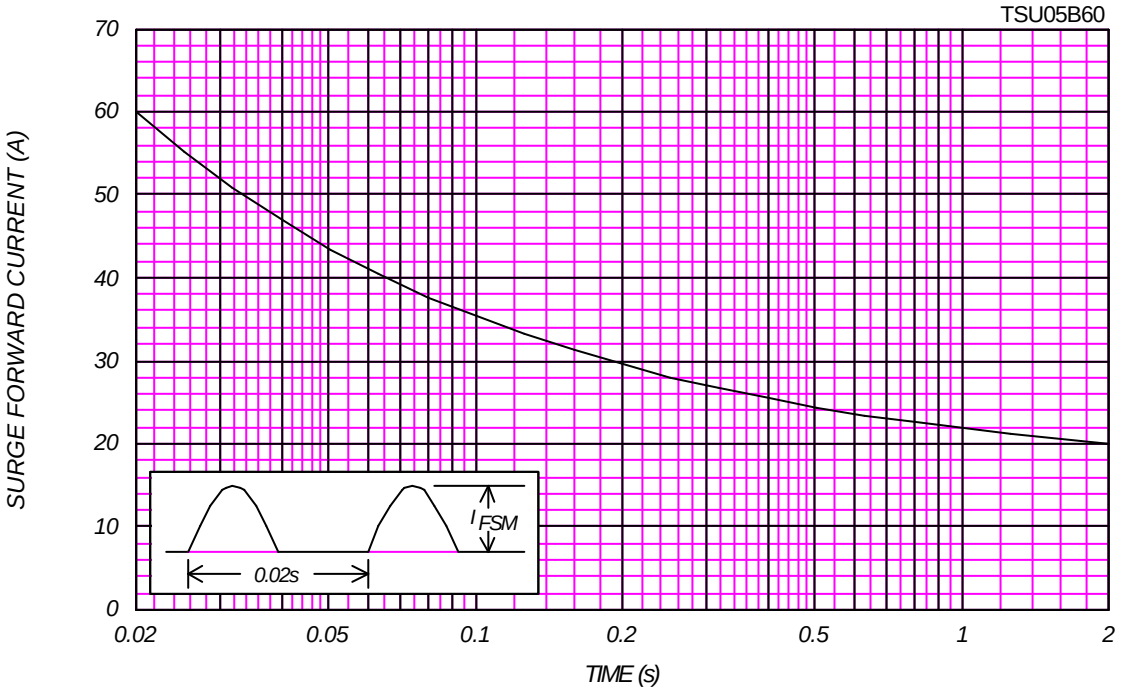


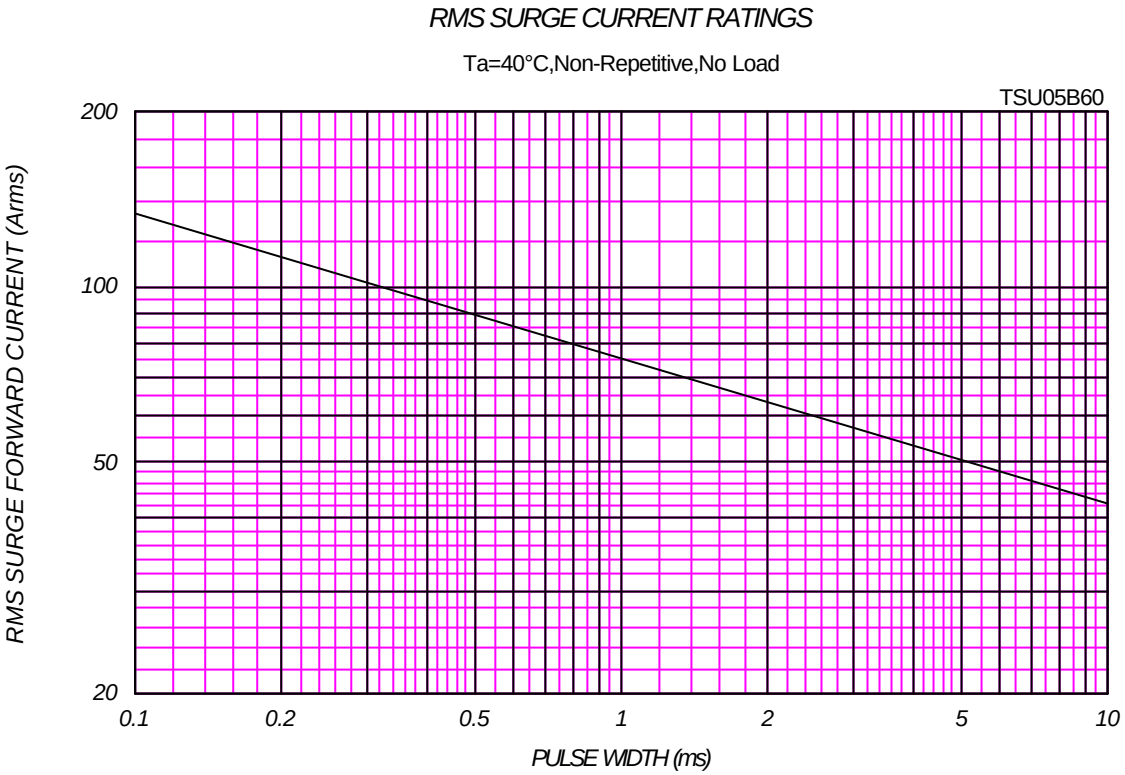
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



SURGE CURRENT RATINGS

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




RMS SURGE CURRENT RATINGS
Ta=40°C,Non-Repetitive,No Load
TSU05B60
RMS SURGE FORWARD CURRENT (Arms)
200
100
50
20
0.1
0.2
0.5
1
2
5
10
PULSE WIDTH (ms)