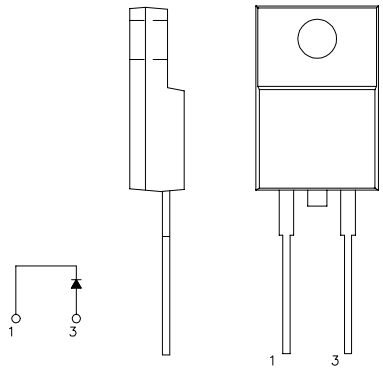
Nihon Inter Electronics Corporation

FRD Type : FSU20B60

OUTLINE DRAWING

For Power Factor Improvement High Frequency Rectification



FEATURES

* Fully Molded Isolation Case
* Ultra – Fast Recovery
* Low Forward Voltage Drop
* Low Power Loss, High Efficiency
* High Surge Capability

Maximum Ratings

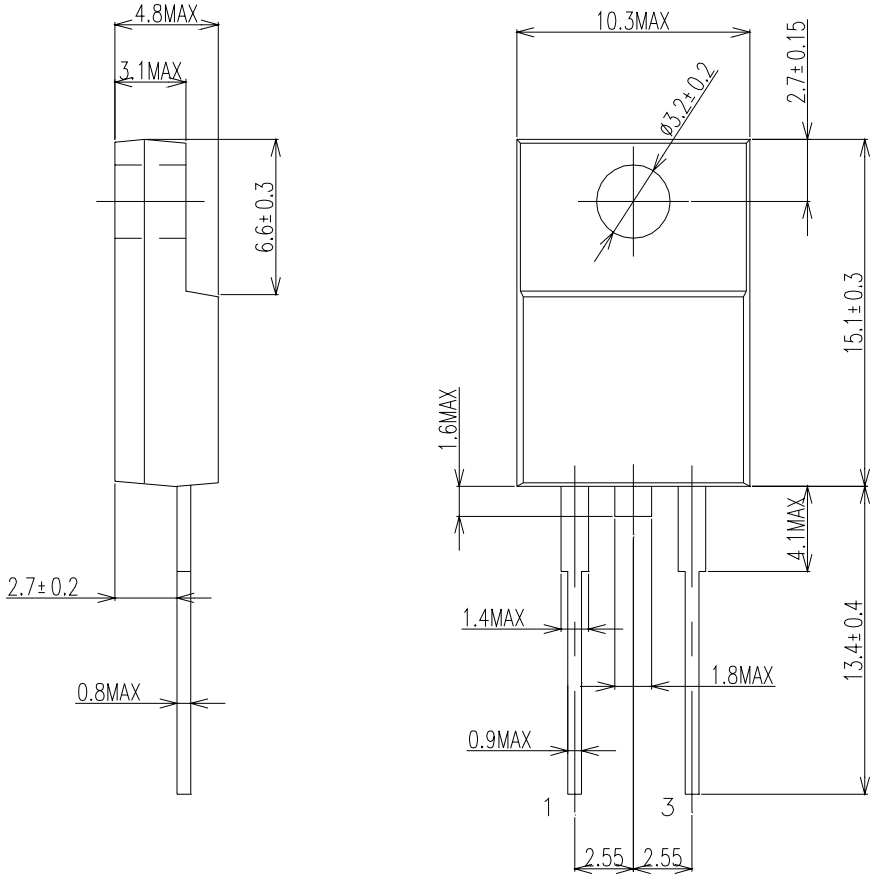
Approx Net Weight:1.7g

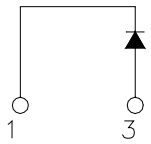
Rating	Symbol	FSU20B60			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	600			V
Average Rectified Output Current	I_O	15	Tc=51℃	50 Hz Half Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	23.5			A
Surge Forward Current	I_{FSM}	160	50 Hz Half Sine Wave,1cycle Non-repetitive		A
Operating JunctionTemperature Range	Tjw	- 40 to + 150			℃
Storage Temperature Range	Tstg	- 40 to + 150			℃
Mounting torque		0.5	Recommended value		N•m

Electrical • Thermal Characteristics

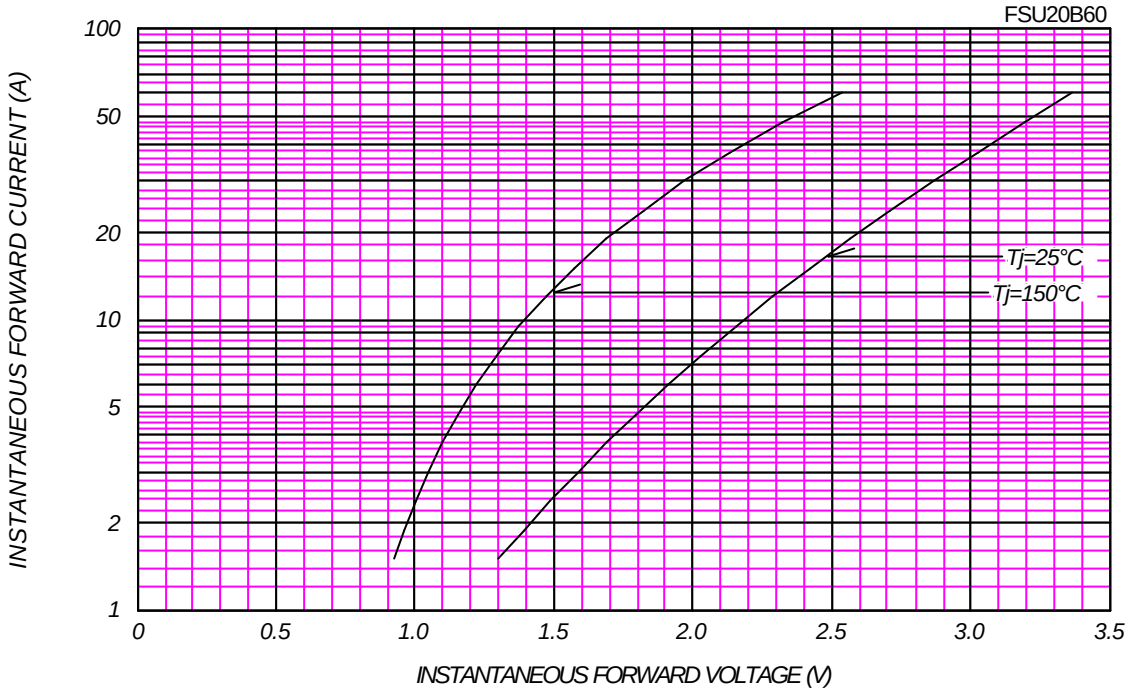
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	Tj= 25℃, V_{RM}= V_{RRM}	-	-	30	μA
Peak Forward Voltage	V_{FM}	Tj= 25℃, I_{FM}= 15A	-	-	2.42	V
		Tj= 25℃, I_{FM}= 20A			2.60	
Reverse Recovery Time	trr	I_{FM}= 10A, -di/dt= 50 A/μs, Ta= 25℃	-	34	50	ns
Thermal Resistance	Rth(j-c)	Junction to Case	-	-	3	℃/W
	Rth(c-f)	Case to Fin	-	-	1.5	

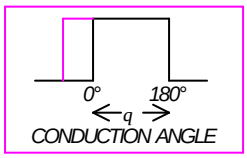
FSU20B60 OUTLINE DRAWING (Dimensions in mm)



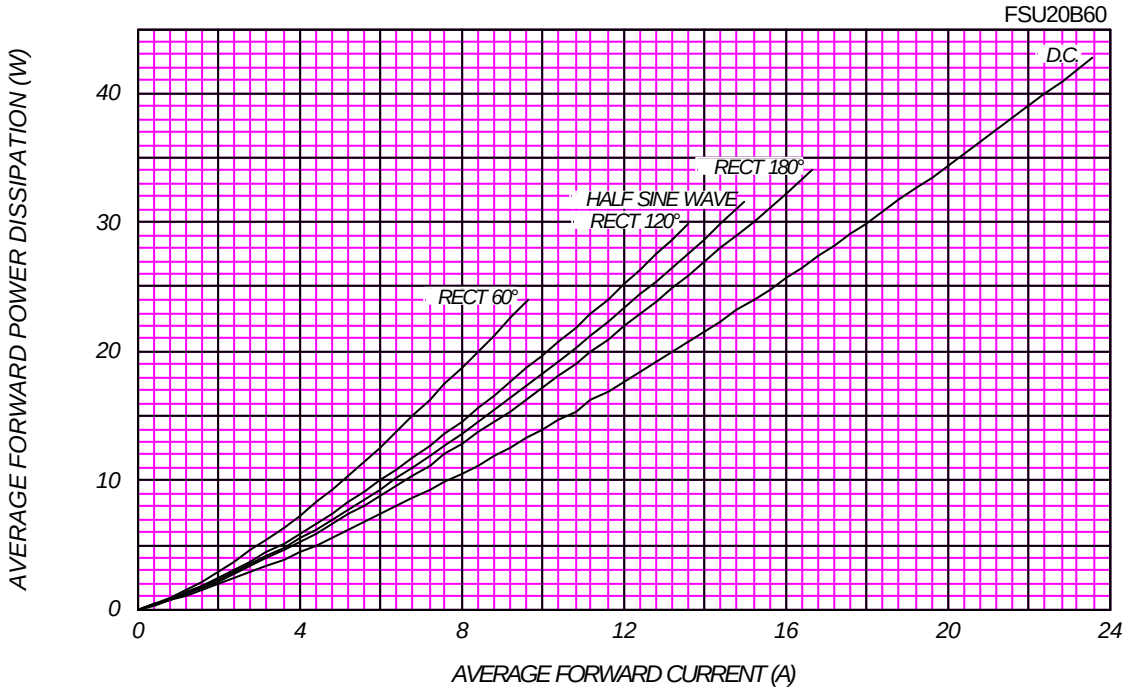


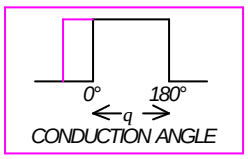
FORWARD CURRENT VS. VOLTAGE



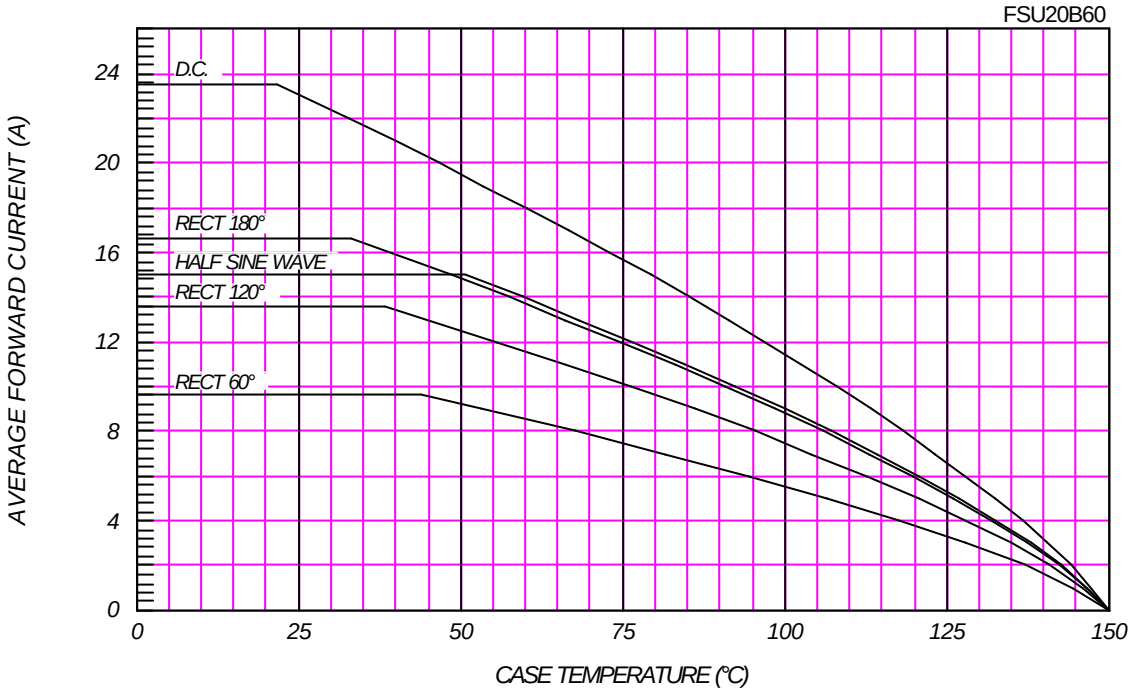


AVERAGE FORWARD POWER DISSIPATION



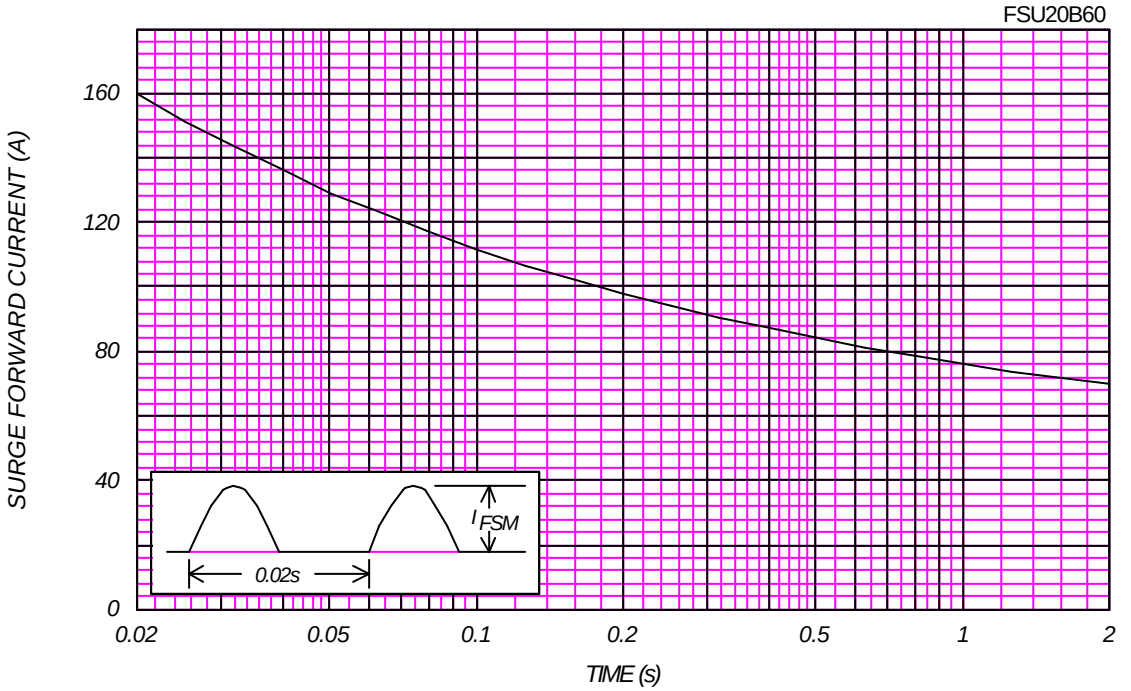


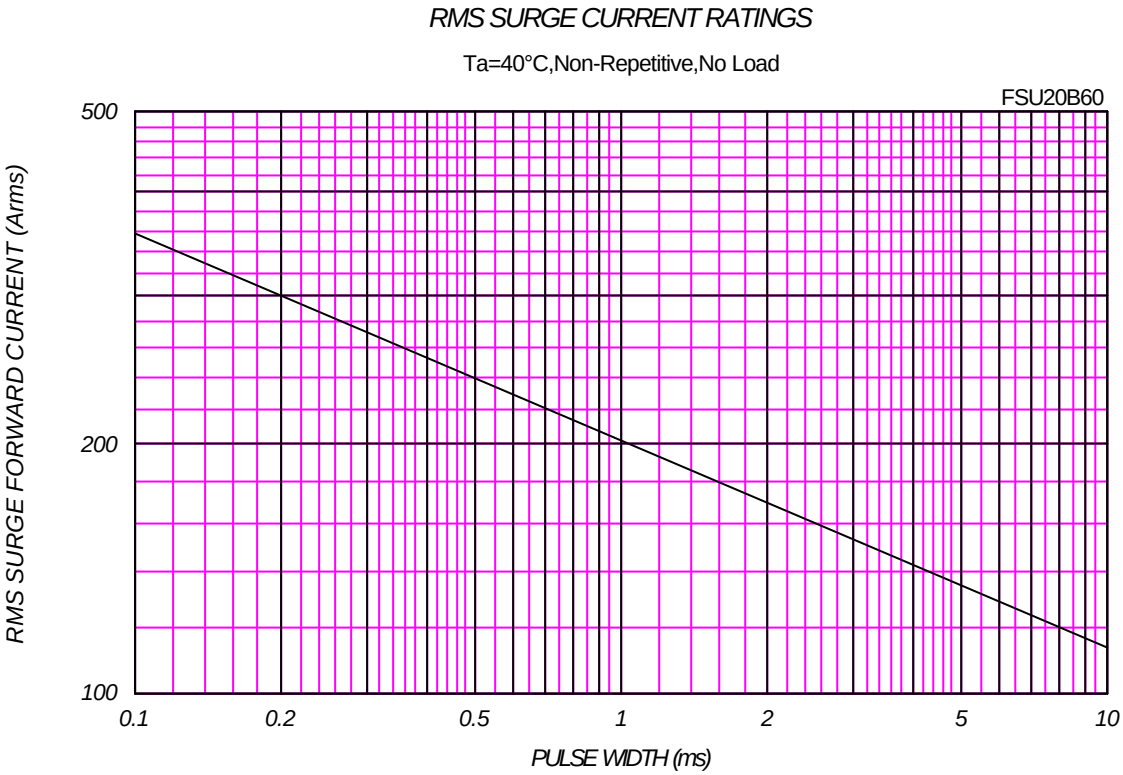
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



SURGE CURRENT RATINGS

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




RMS SURGE CURRENT RATINGS
Ta=40°C,Non-Repetitive,No Load
FSU20B60
RMS SURGE FORWARD CURRENT (Arms)
500
200
100
0.1
0.2
0.5
1
2
5
10
PULSE WIDTH (ms)