Nihon Inter Electronics Corporation

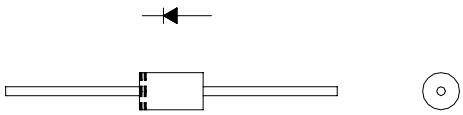
DIODE Type : 30PUB60

OUTLINE DRAWING

3A 600V 27ns

FEATURES

* Ultra-Fast Recovery
* Low Forward Voltage drop
* Low Reverse Leakage Current
* High Surge Capability



Maximum Ratings

Approx Net Weight:1.21g

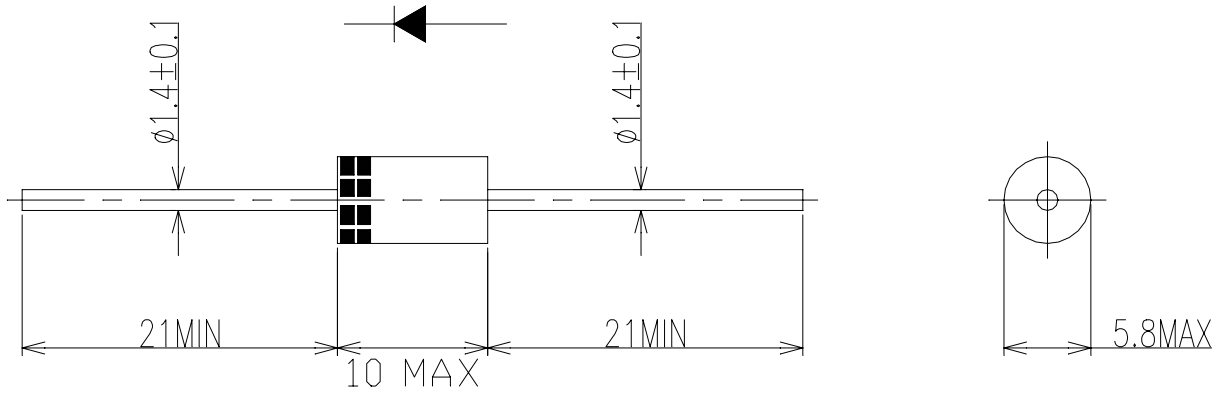
Rating	Symbol	30PUB60			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	600			V
Average Rectified Output Current	I_O	50Hz Half Sine Wave Resistive Load	Ta=43℃ *1	1.6	A
			Tl=89℃ (Tl: Lead Temperature)	3.0	
RMS Forward Current	$I_{F(RMS)}$			4.71	A
Surge Forward Current	I_{FSM}	50Hz Half Sine Wave,1cycle, Non-repetitive		45	A
Operating JunctionTemperature Range	T_{jw}	- 40 to + 150			℃
Storage Temperature Range	T_{stg}	- 40 to + 150			℃

Electrical • Thermal Characteristics

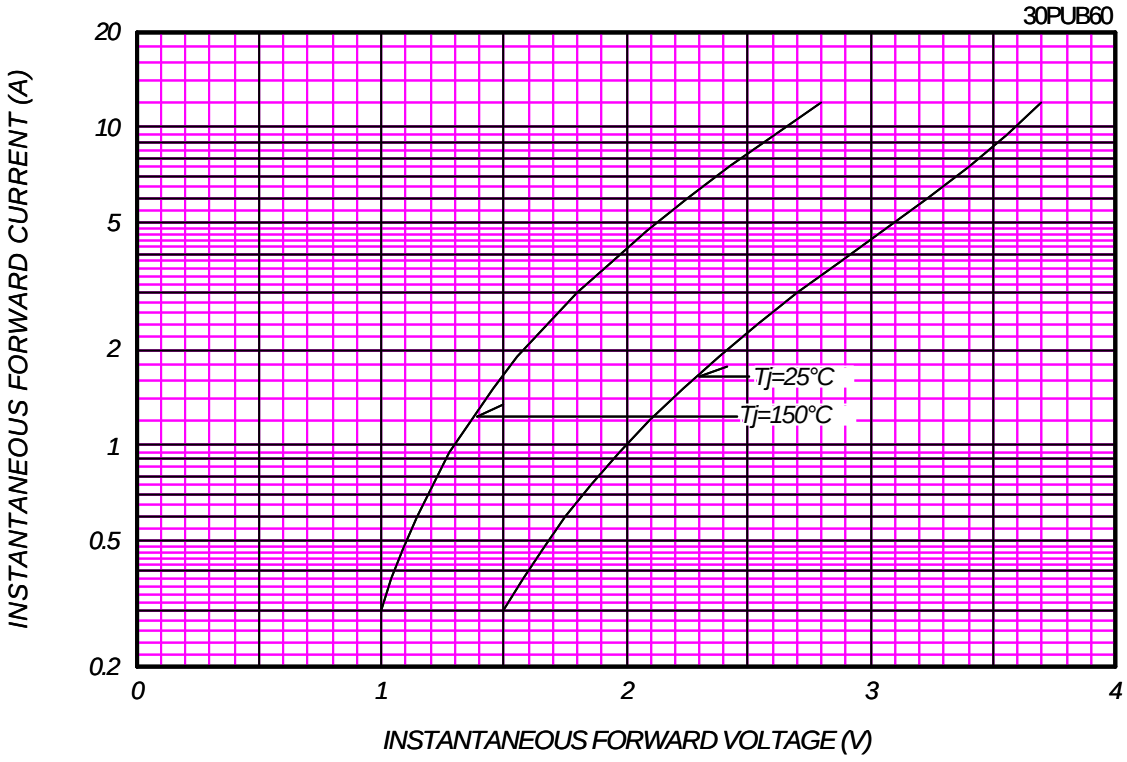
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	Tj= 25℃, V_{RM}= V_{RRM}	-	-	20	μA
Peak Forward Voltage	V_{FM}	Tj= 25℃, I_{FM}= 3.0A			2.7	V
Reverse Recovery Time	trr	Tj= 25℃, I_{FM}= 3.0A –di/dt=50A/μs	-	-	27	ns
Thermal Resistance	Rth(j-a)	Junction to Ambient *1(With Fin)	-	-	34	℃/W
	Rth(j-l)	Junction to Lead	-	-	8	

1: With Cu Fin (20x20x1, L-5mm, Both sides)

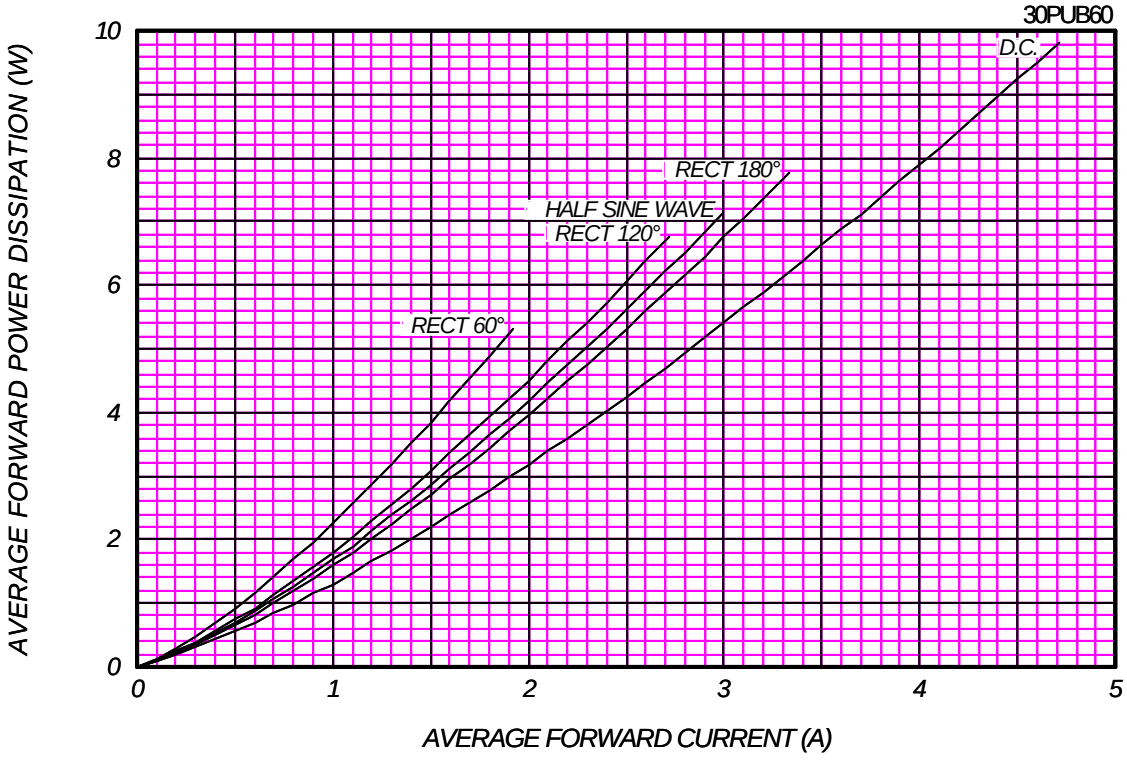
30PU*_ OUTLINE DRAWING (Dimensions in mm)



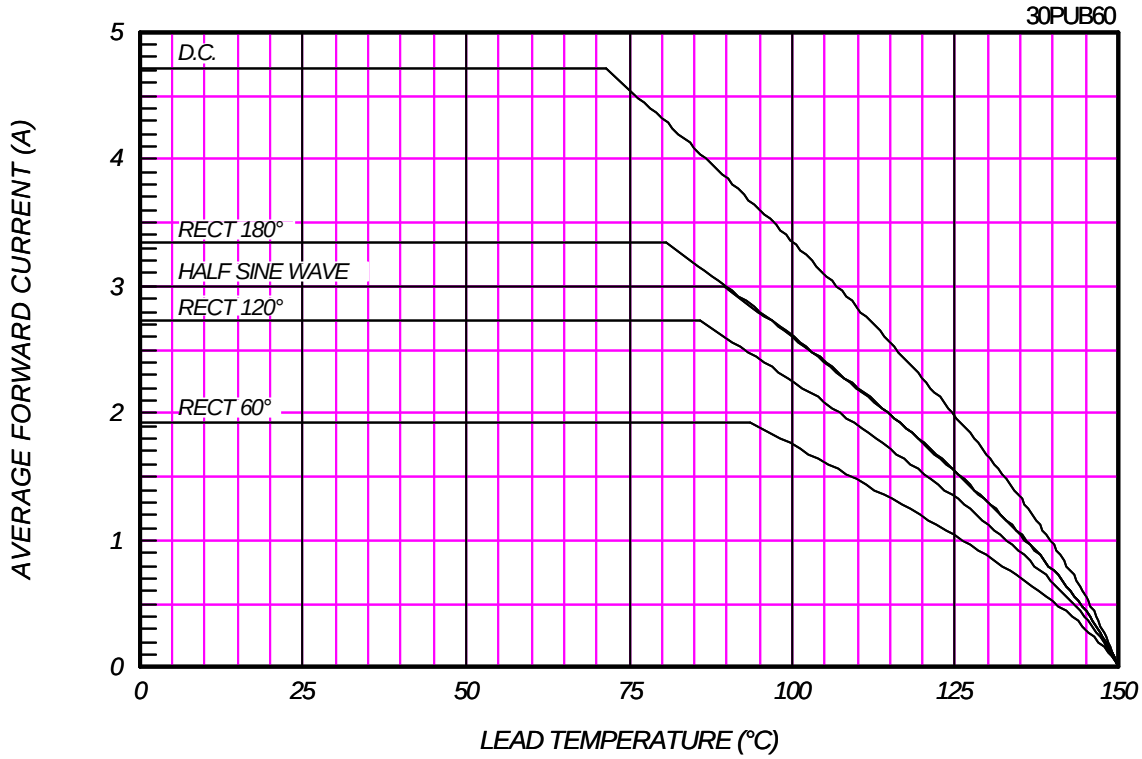
FORWARD CURRENT VS. VOLTAGE



AVERAGE FORWARD POWER DISSIPATION

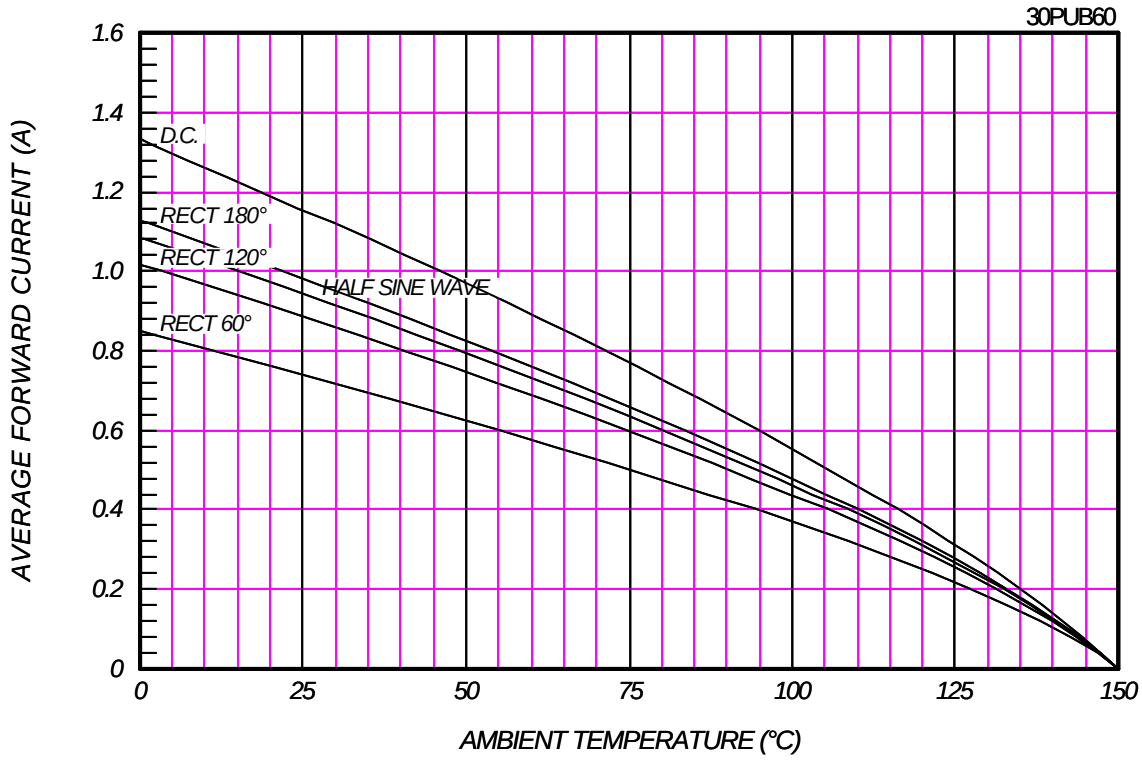


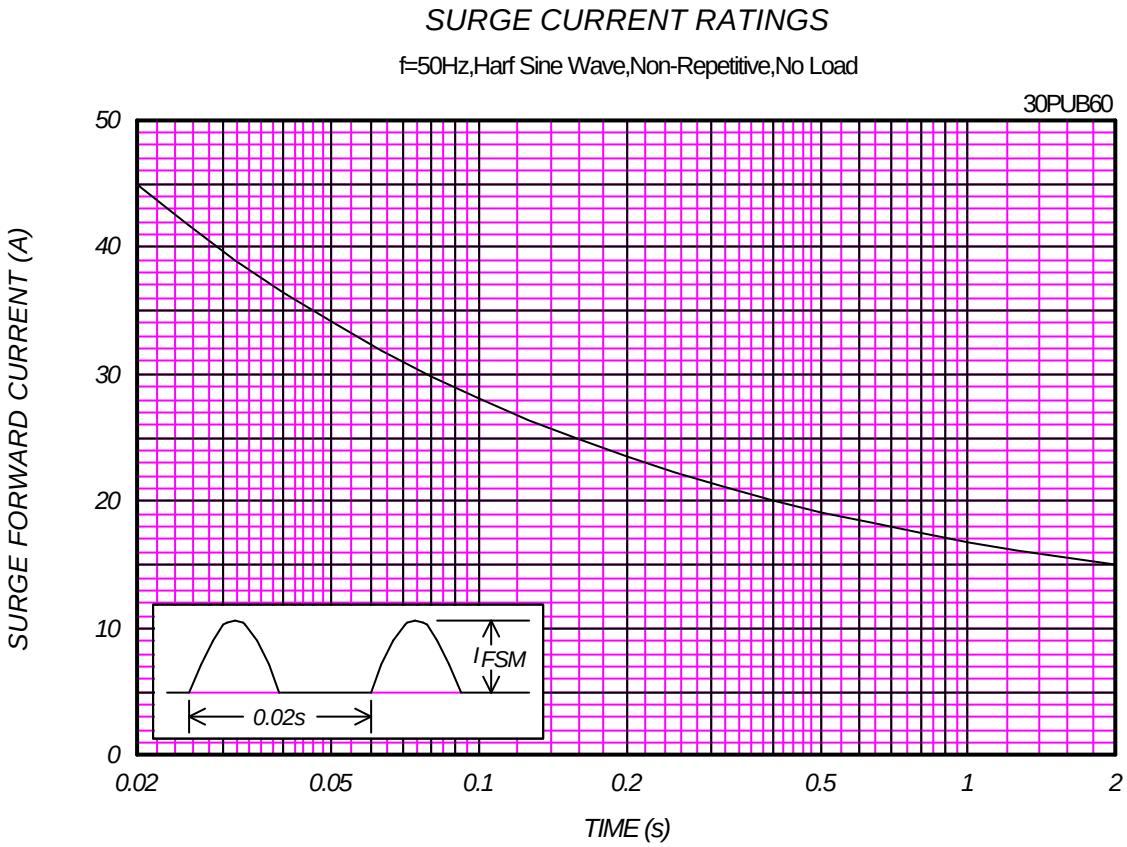
AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE



AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Without Fin or P.C. Board




SURGE CURRENT RATINGS
f=50Hz,Harf Sine Wave,Non-Repetitive,No Load
30PUB60
SURGE FORWARD CURRENT (A)
50
40
30
20
10
0
0.02
0.05
0.1
0.2
0.5
1
2
TIME (s)
IFSM
0.02s