Nihon Inter Electronics Corporation

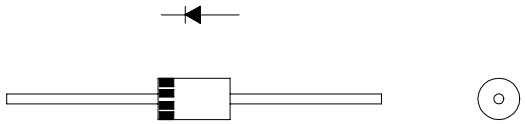
3A 200A Axial

SBD Type: 30PHA20

OUTLINE DRAWING

FEATURES

* High VRM SBD
* Low Forward Voltage Drop
* Low Power Loss, High Efficiency
* High Surge Capability



Maximum Ratings

Apporox Net Weight:1.19g

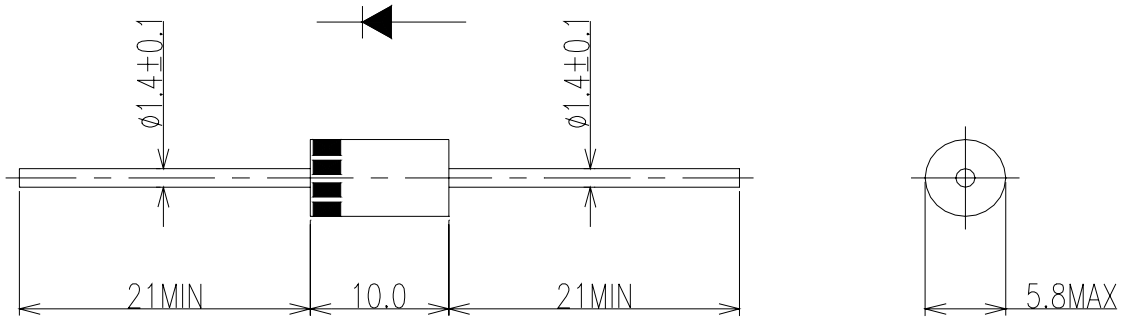
Rating	Symbol	30PHA20			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	200			V
Average Rectified Output Current	I_O	3.0	Tl=125℃ (Tl:Lead Temperature)	50Hz Half Sine Wave Resistive Load	A
		1.4	Ta=36℃		
RMS Forward Current	$I_{F(RMS)}$	4.71			A
Surge Forward Current	I_{FSM}	60	50Hz Half Sine Wave,1cycle, Non-repetitive		A
Operating JunctionTemperature Range	Tjw	- 40 to + 150			℃
Storage Temperature Range	Tstg	- 40 to + 150			℃

Electrical/Thermal • Characteristics

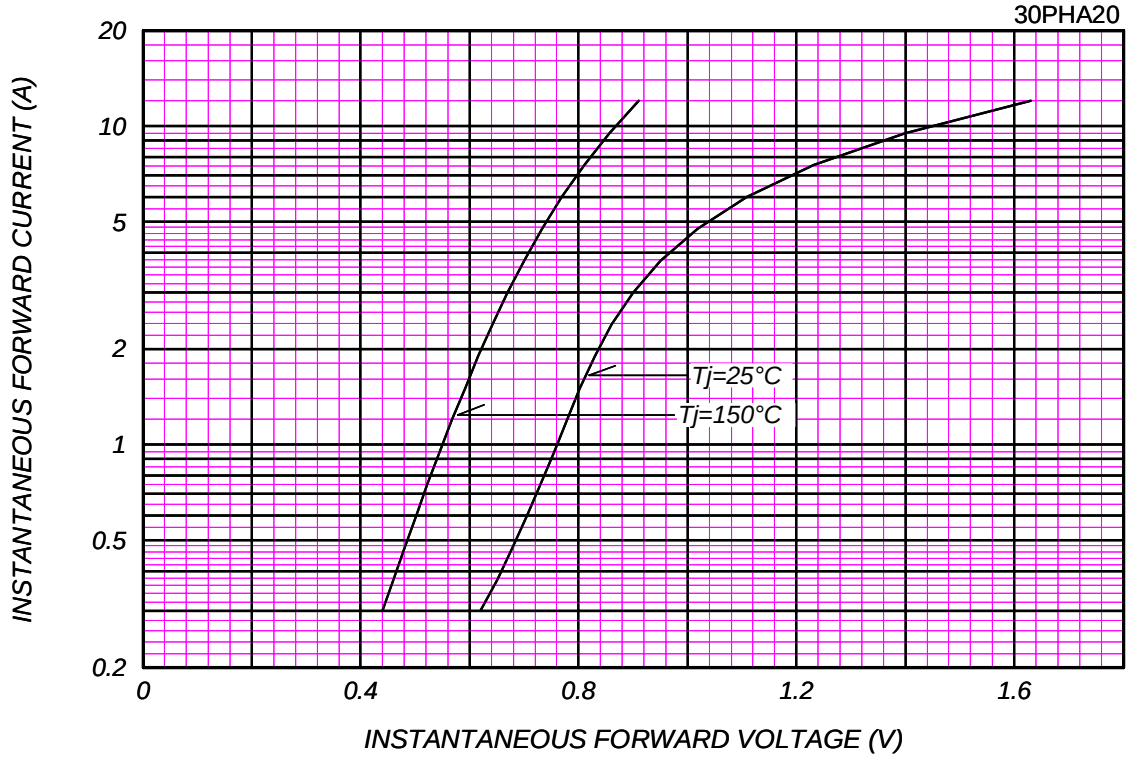
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	Tj= 25℃, V_{RM}= V_{RRM}	-	-	200	μA
Peak Forward Voltage	V_{FM}	Tj= 25℃, I_{FM}= 3 A	-	-	0.90	V
Thermal Resistance	Rth(j-l)	Junction to Lead	-	-	8	℃/W
	Rth(j-a)	Junction to Ambient *			80	

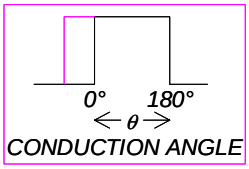
*: Print Lands 5x5mm, Both sides

30PHA20 OUTLINE DRAWING (Dimensions in mm)

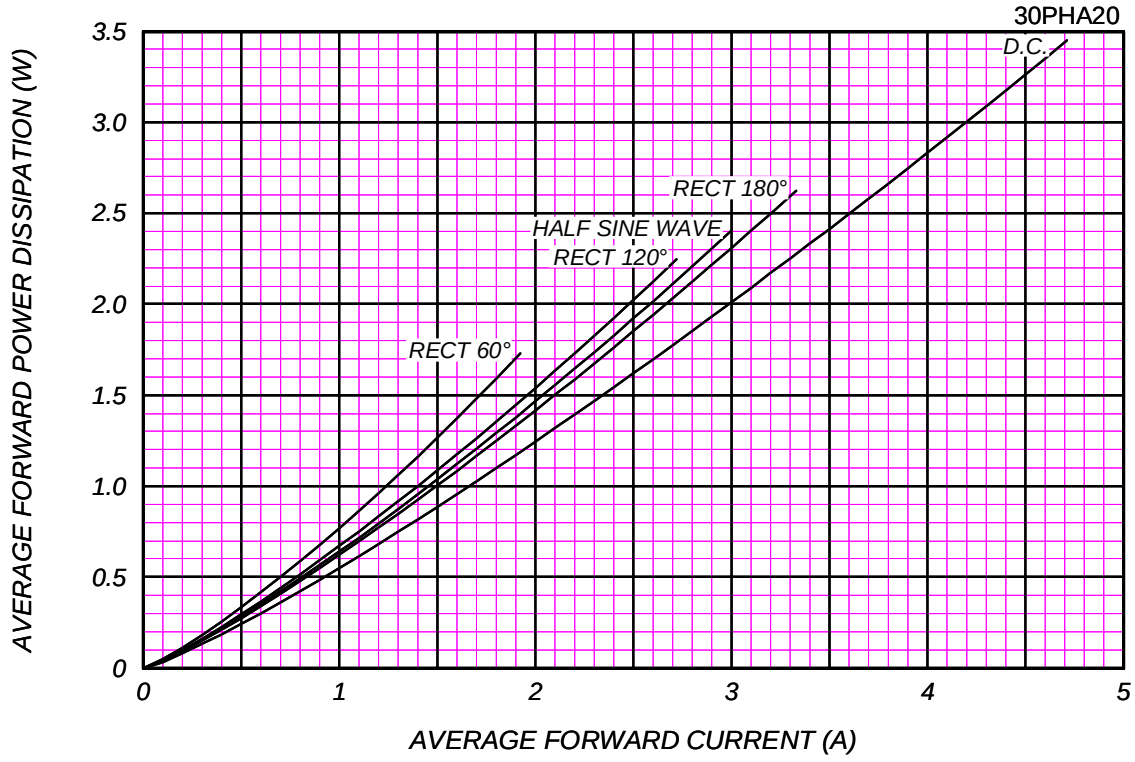


FORWARD CURRENT VS. VOLTAGE



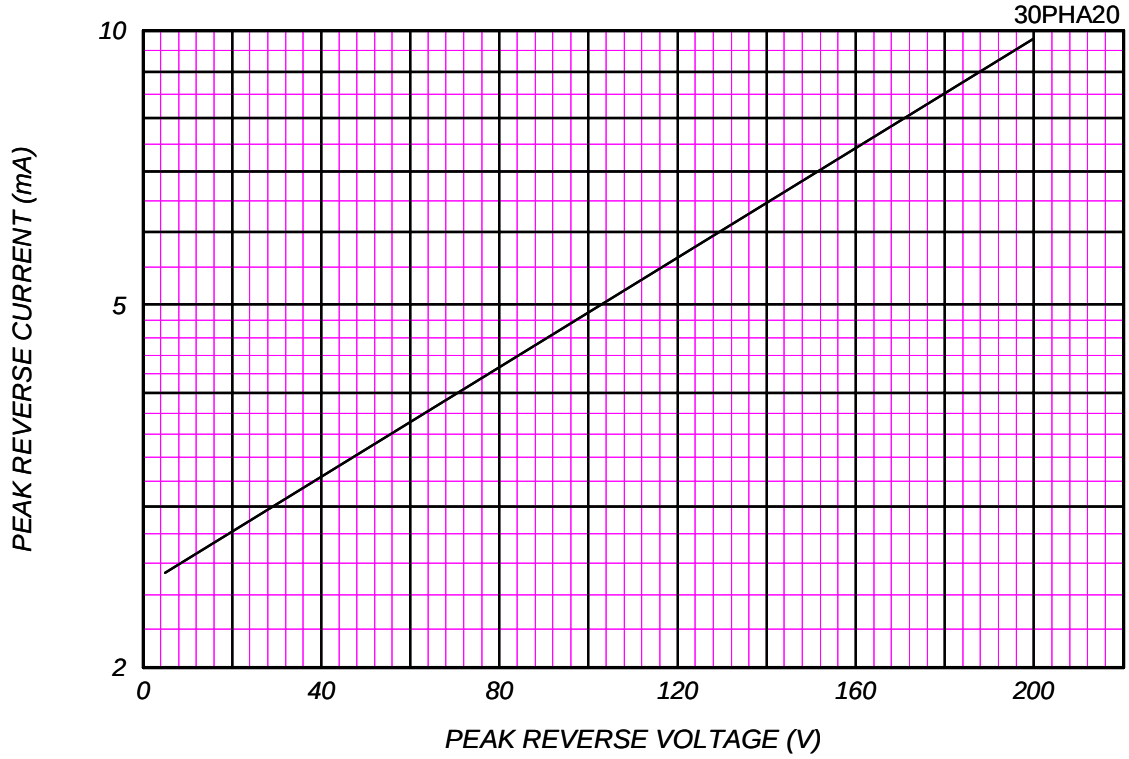


AVERAGE FORWARD POWER DISSIPATION

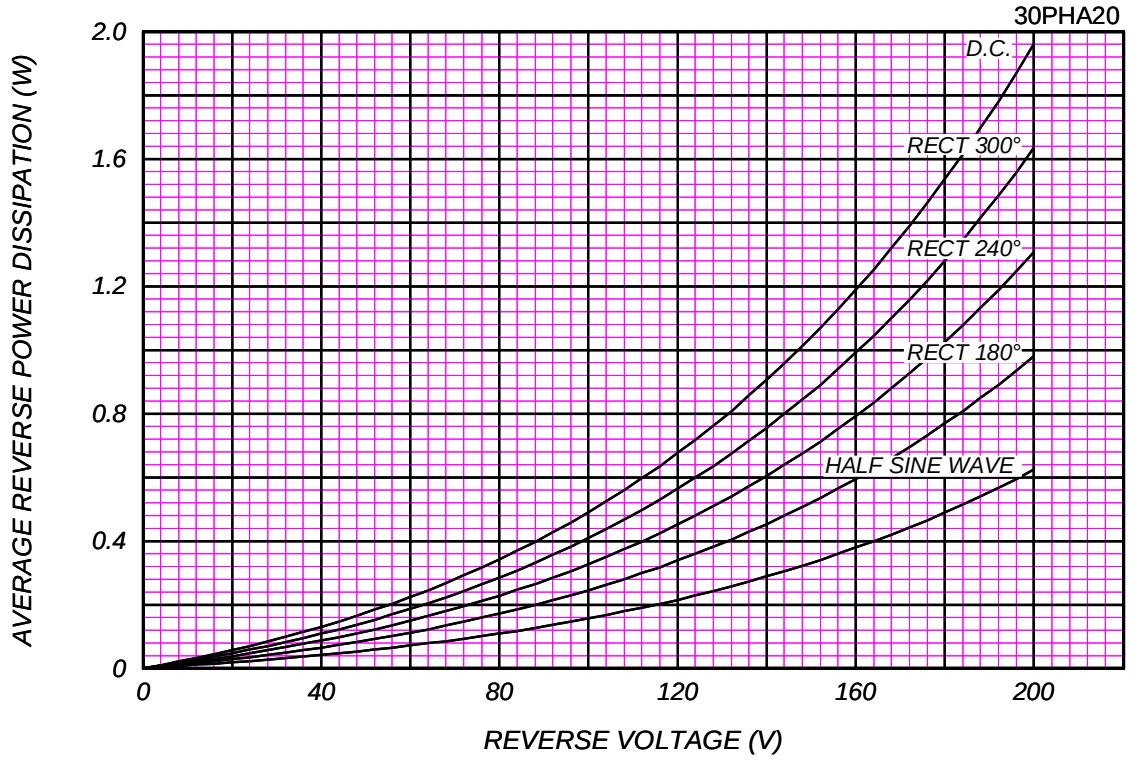


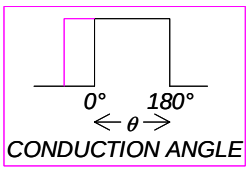
PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

Tj= 150 °C



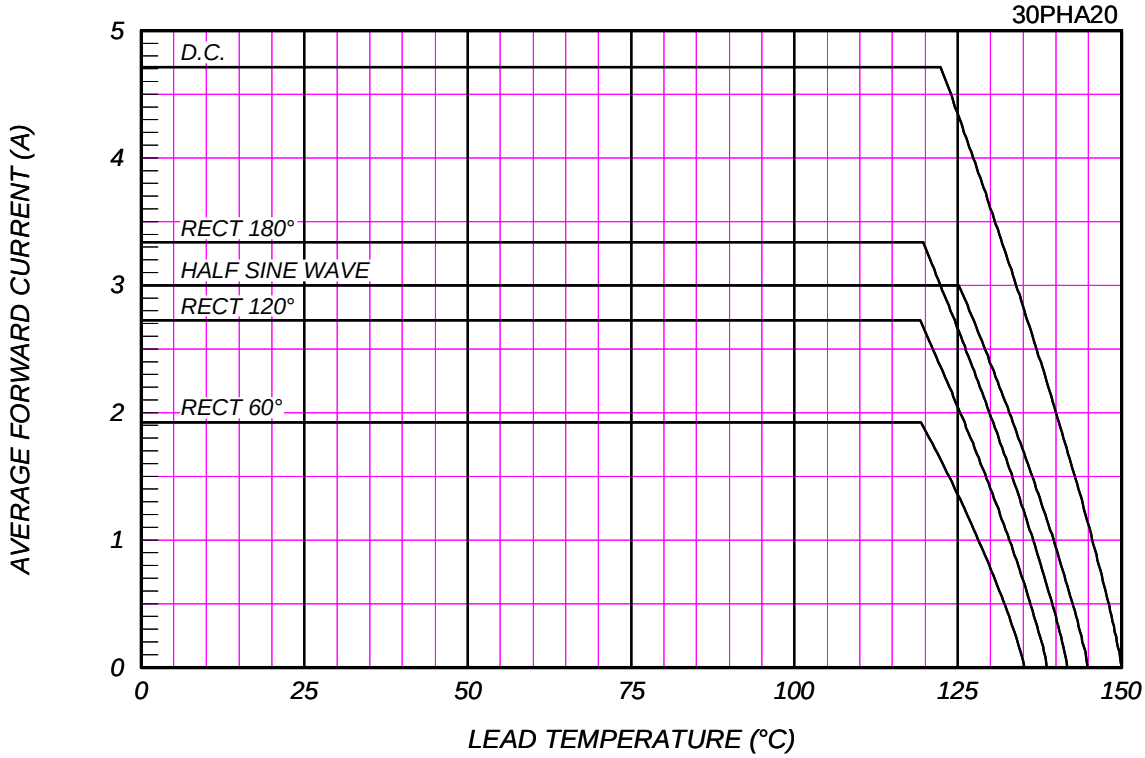
AVERAGE REVERSE POWER DISSIPATION

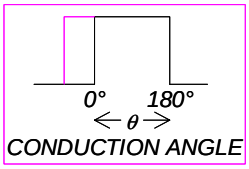




AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

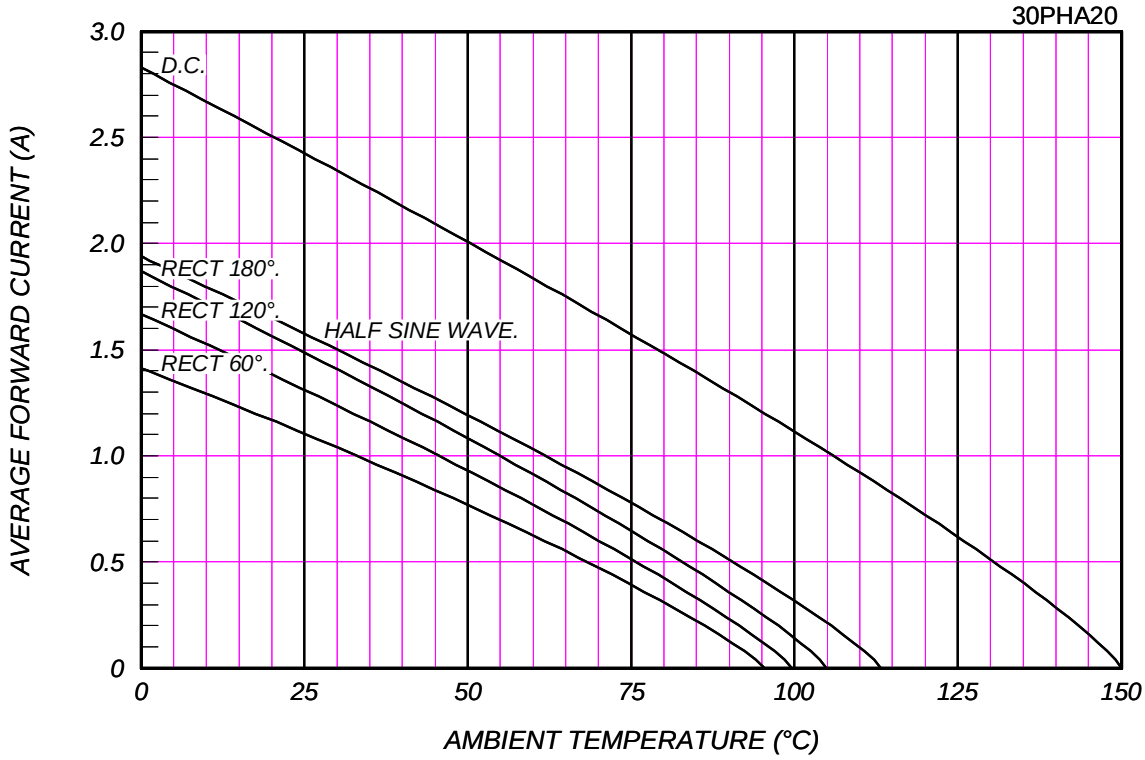
V_{RM}=200V





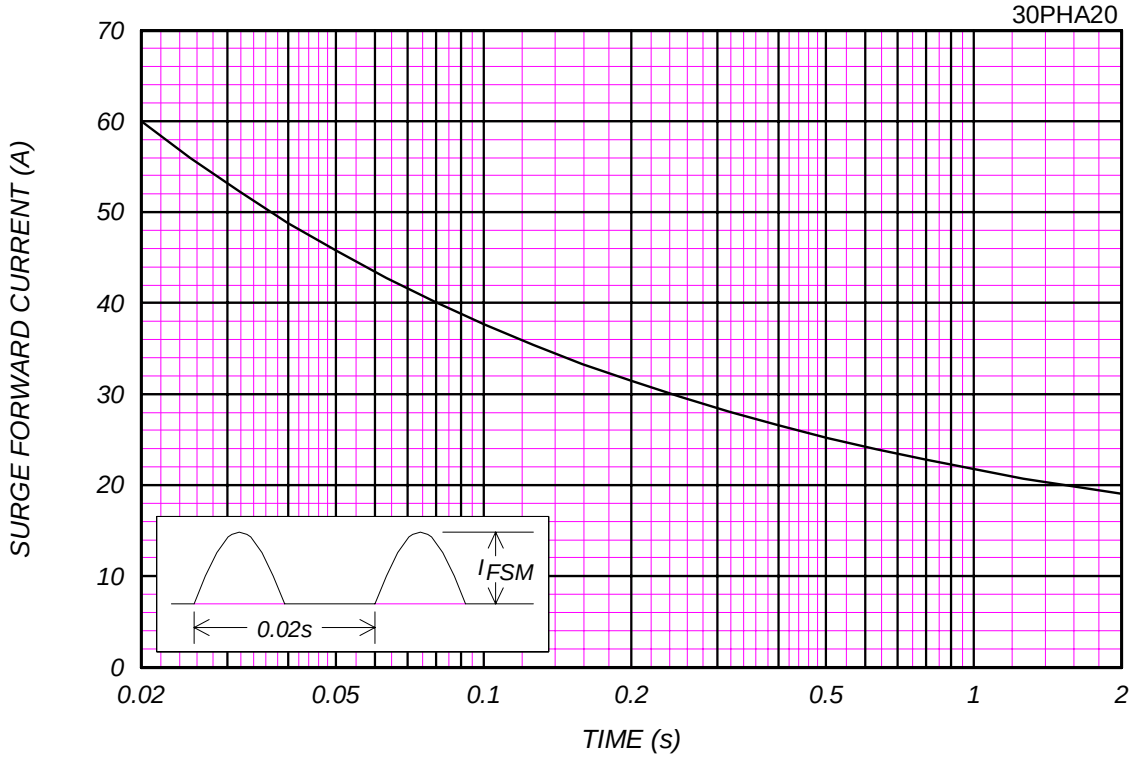
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Without Fin or P.C. Board, V_{RM}=200V



SURGE CURRENT RATINGS

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



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

Tj=25°C,Vm=20mV_{RMS},f=100kHz,Typical Value