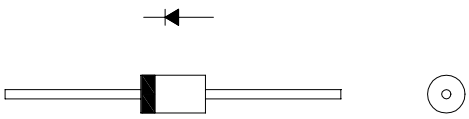
Nihon Inter Electronics Corporation

FRD Type: 31DF2

FEATURES

* Ultra – Fast Recovery
* Low Forward Voltage Drop
* Low Power Loss, High Efficiency
* High Surge Capability
* 200 Volts thru 600 Volts Types Available

OUTLINE DRAWING



Maximum Ratings

Apporox Net Weight:1.19g

Rating	Symbol	31DF2			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	200			V
Non-repetitive Peak Reverse Voltage	V_{RSM}	220			V
Average Rectified Output Current	I_O	1.6	Ta=40℃ ∗1	50Hz Half Sine Wave Resistive Load	A
		3.0	Ta=40℃ ∗2		
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			℃

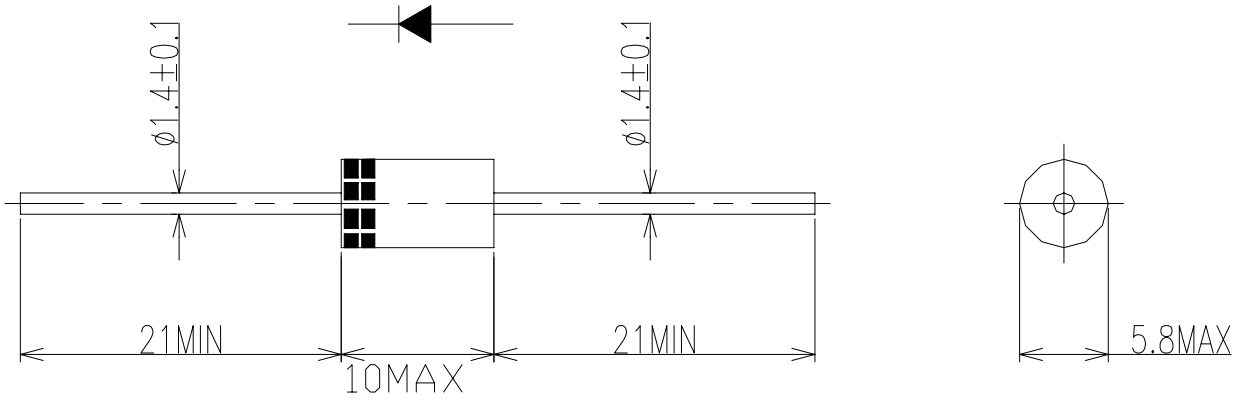
Electrical/Thermal • Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	Tj= 25℃, V_{RM}= V_{RRM}	-	-	10	μA
Peak Forward Voltage	V_{FM}	Tj= 25℃, I_{FM}= 3 A	-	-	0.98	V
Reverse Recovery Time	trr	Ta= 25℃, I_{FM}=3 A –di/dt=50A/μs			30	ns
Thermal Resistance (Junction to Ambient)	Rth(j-a)	∗1:Without Fin.	-	-	80	℃/W
		∗2:With Fin			34	

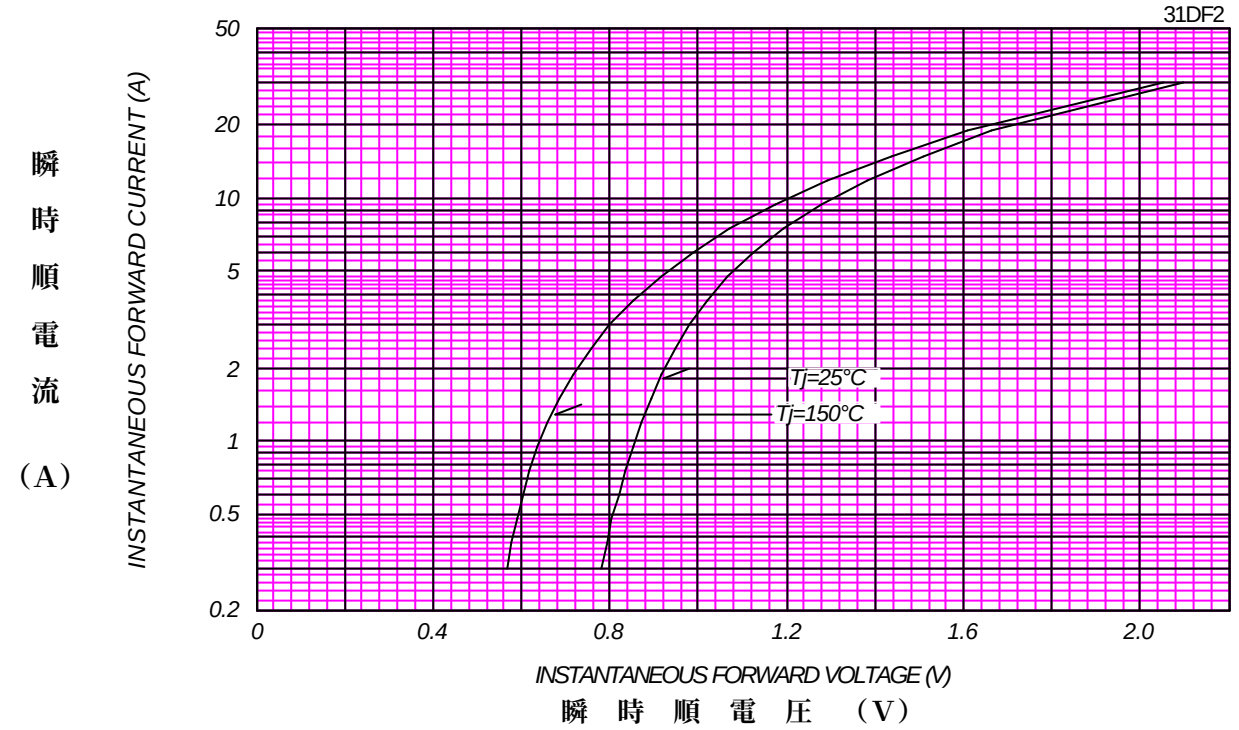
∗1: Without Fin or P.C. Board

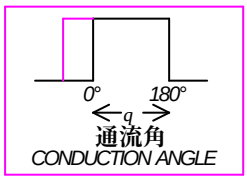
∗2: With Fin:20x20x1t(mm):Copper plates, L=5mm, Both Sides

31DF_ OUTLINE DRAWING (Dimensions in mm)

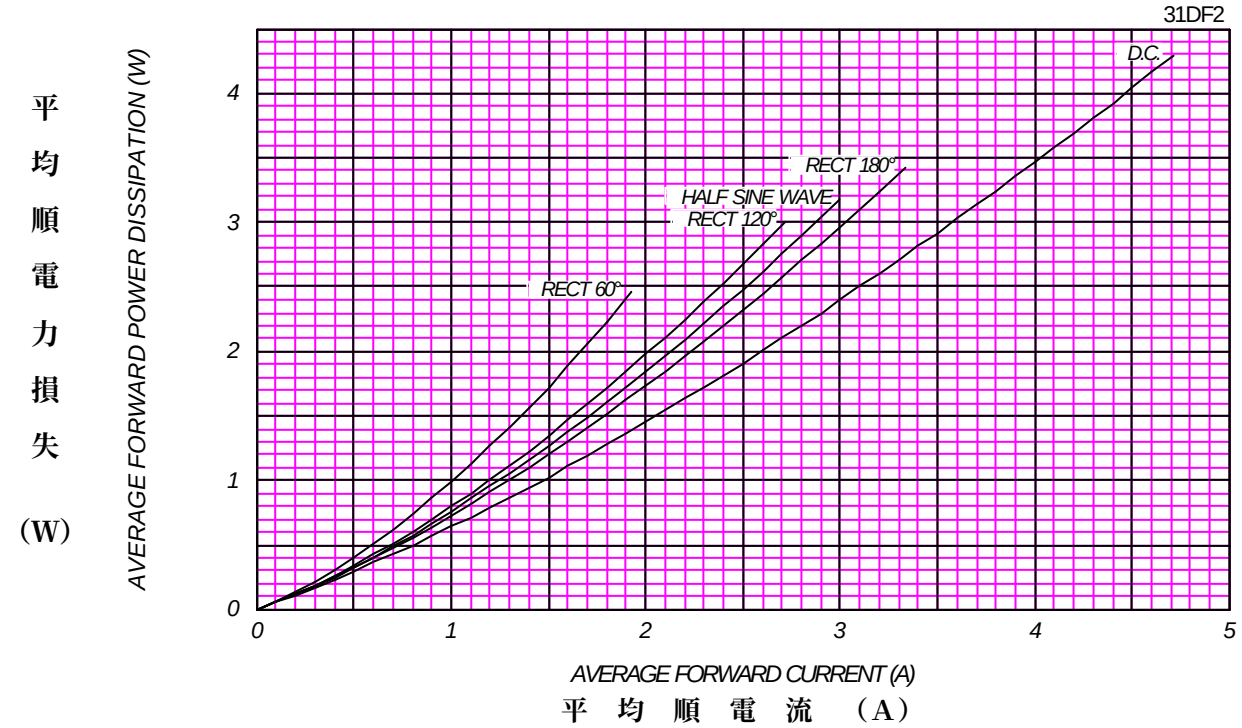


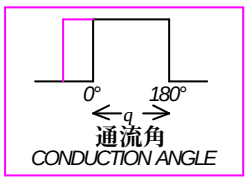
順 電 圧 特 性
FORWARD CURRENT VS. VOLTAGE





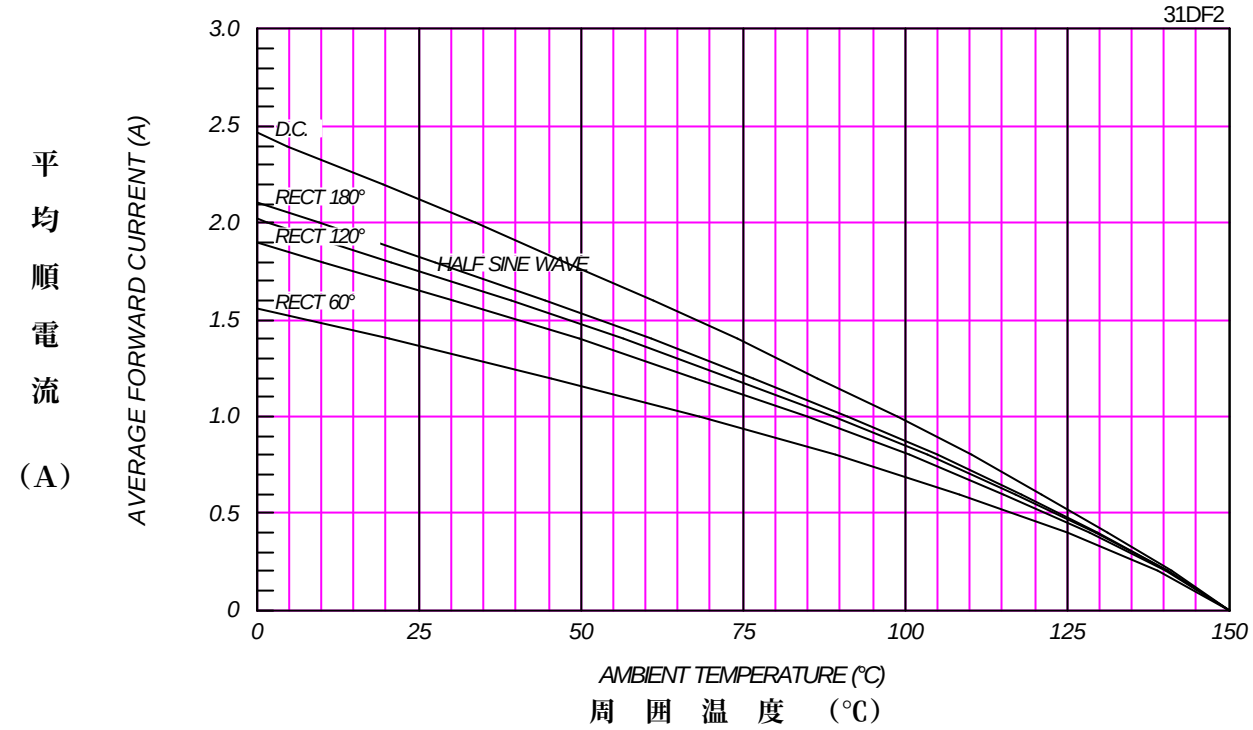
平 均 順 電 力 損 失 特 性
AVERAGE FORWARD POWER DISSIPATION

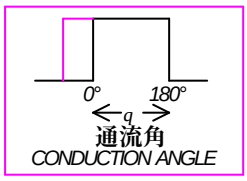




平 均 順 電 流 － 周 囲 温 度 定 格
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

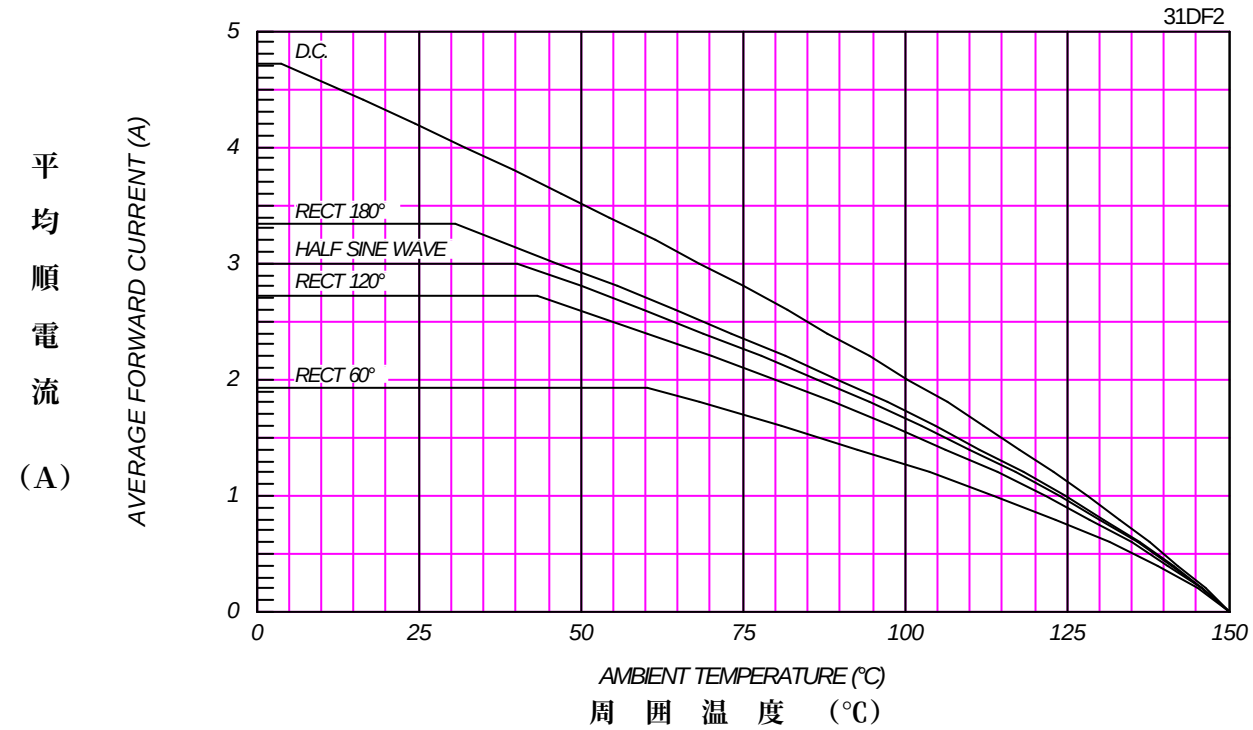
Without Fin or P.C. Board





平 均 順 電 流 － 周 囲 温 度 定 格
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

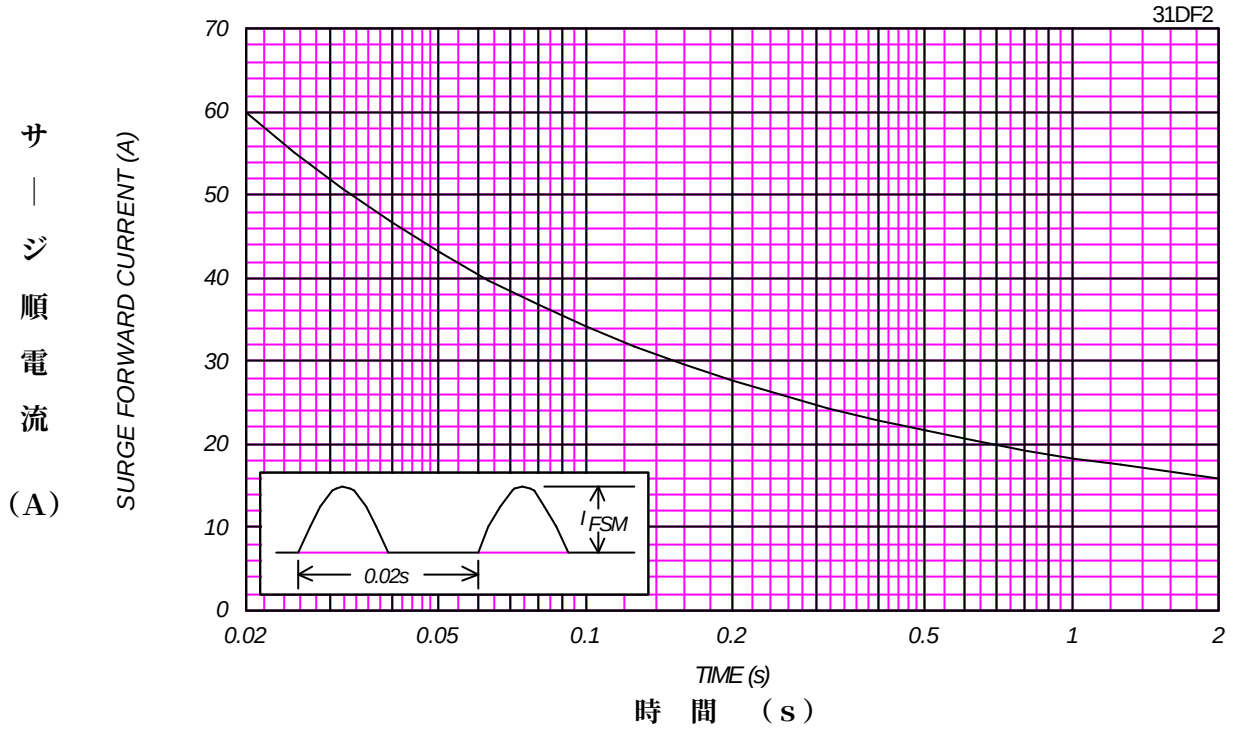
With Cu Fin (20×20×1t,L=5mm,Both sides)



サ　ー　ジ　順　電　流　定　格

SURGE CURRENT RATINGS

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



サ　ー　ジ　順　電　流　（A）

時　間　（s）