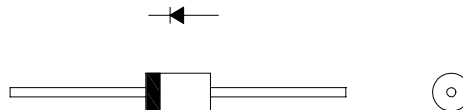


FRD Type: 31DF4

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	31DF4			Unit
Repetitive Peak Reverse Voltage	V _{RRM}	400			V
Non-repetitive Peak Reverse Voltage	V _{RSM}	440			V
Average Rectified Output Current	I _O	1.5	Ta=29℃ *1	50Hz Half Sine Wave Resistive Load	A
		3.0	Ta=25℃ *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	T _{jw}	- 40 to + 150			℃
Storage Temperature Range	T _{stg}	- 40 to + 150			℃

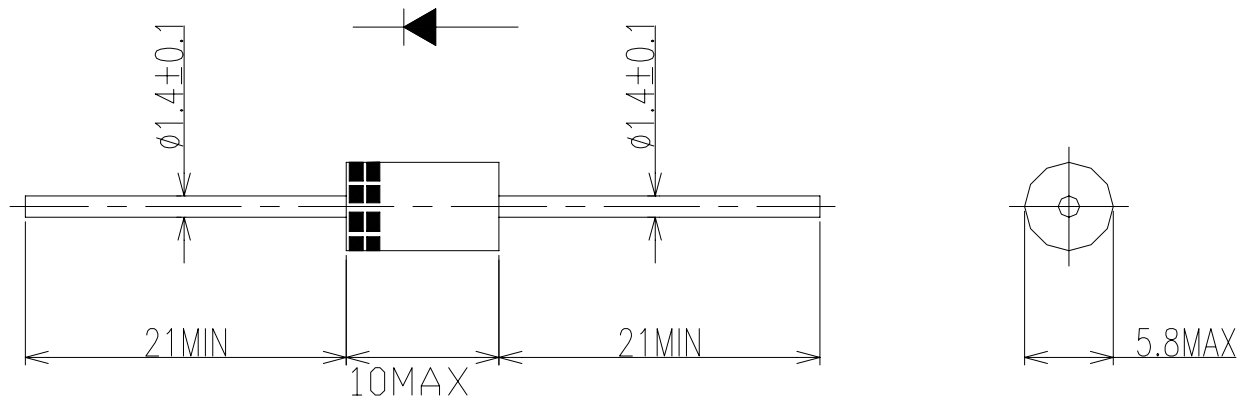
Electrical/Thermal • Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	Tj= 25°C, $V_{RM} = V_{RRM}$	-	-	20	μA
Peak Forward Voltage	V_{FM}	Tj= 25°C, $I_{FM} = 3$ A	-	-	1.25	V
Reverse Recovery Time	t_{rr}	Ta= 25°C, $I_{FM} = 3$ A -di/dt=50A/μs			30	ns
Thermal Resistance (Junction to Ambient)	$R_{th(j-a)}$	*1:Without Fin.	-	-	80	°C/W
		*2:With Fin			34	

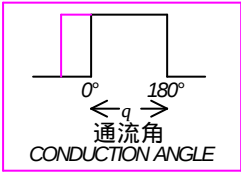
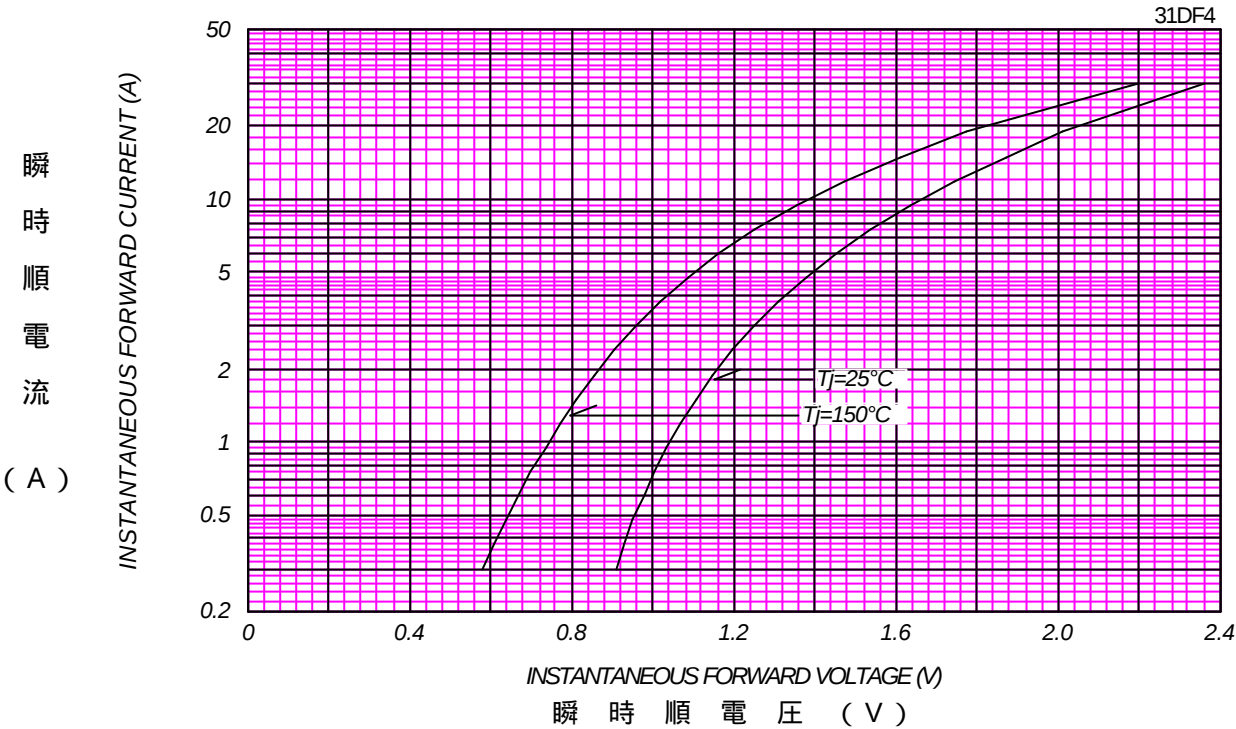
*1: Without Fin or P.C. Board

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

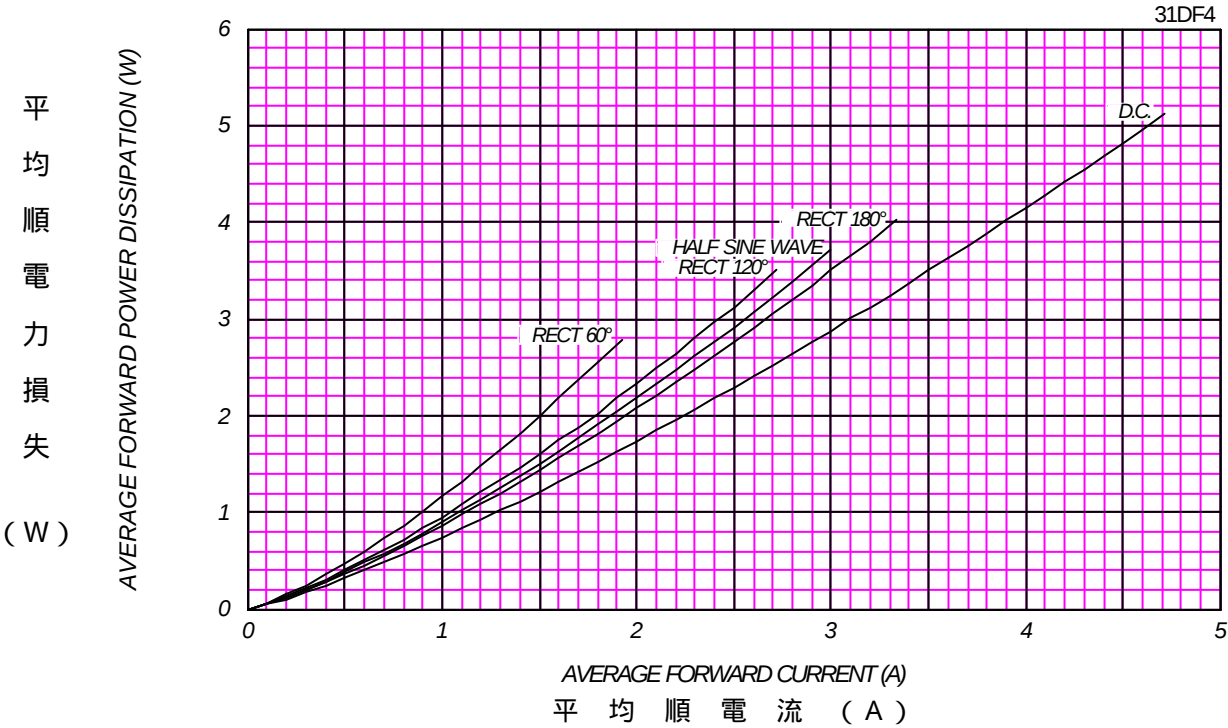
31DF_ OUTLINE DRAWING (Dimensions in mm)

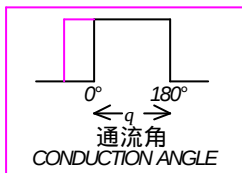


順電壓特性
FORWARD CURRENT VS. VOLTAGE



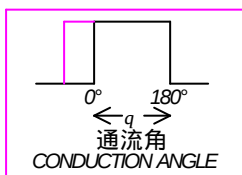
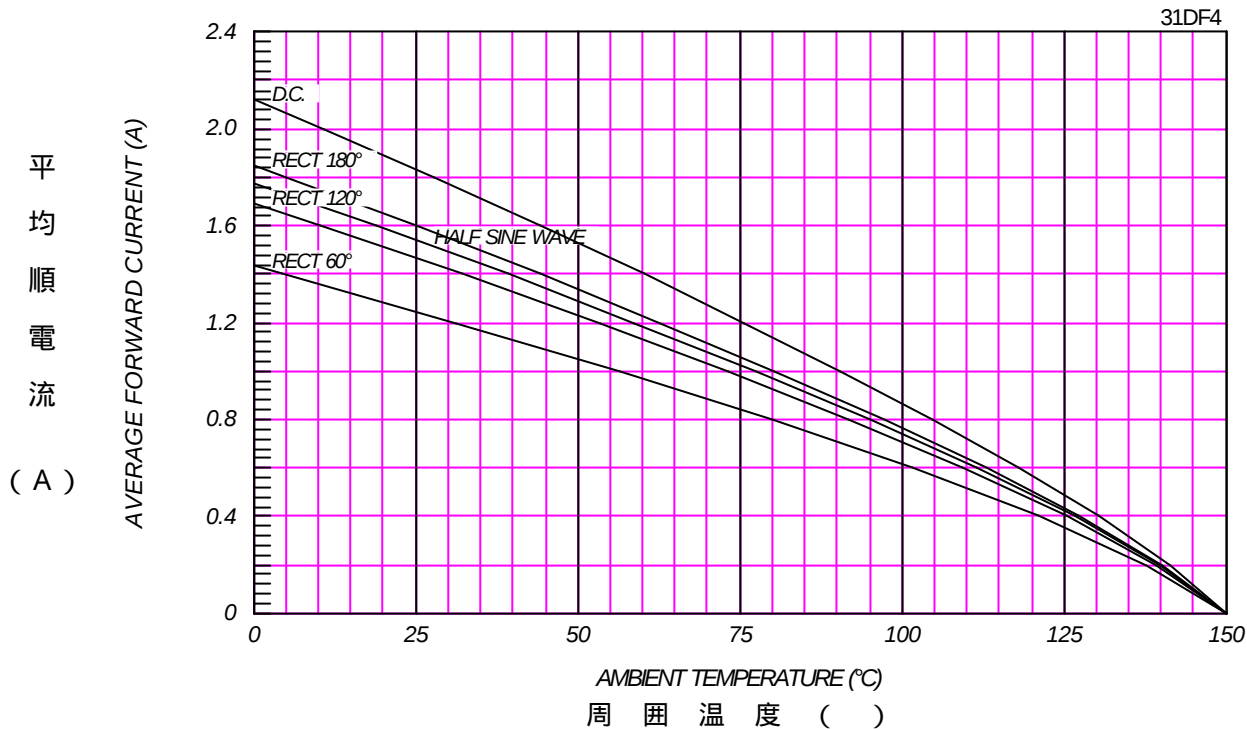
平均順電力損失特性
AVERAGE FORWARD POWER DISSIPATION





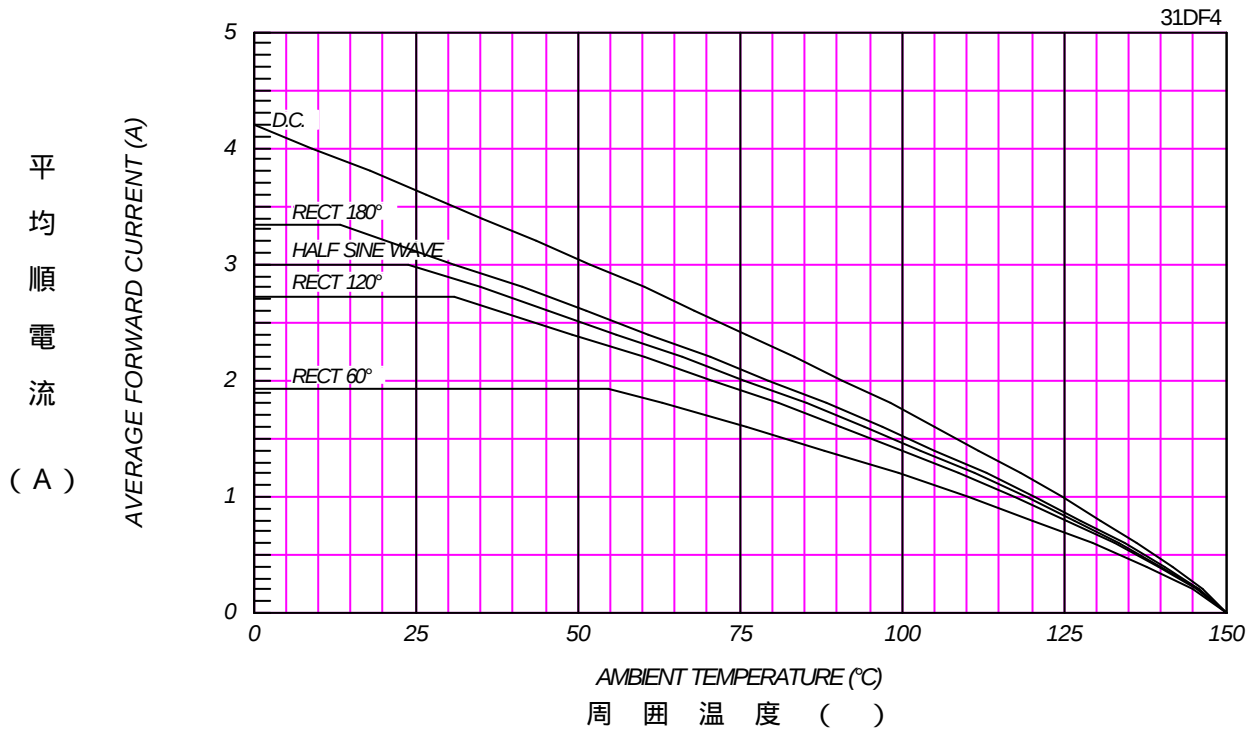
平均順電流 - 周圍溫度定格 AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Without Fin or P.C.Board



平均順電流 - 周圍溫度定格 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

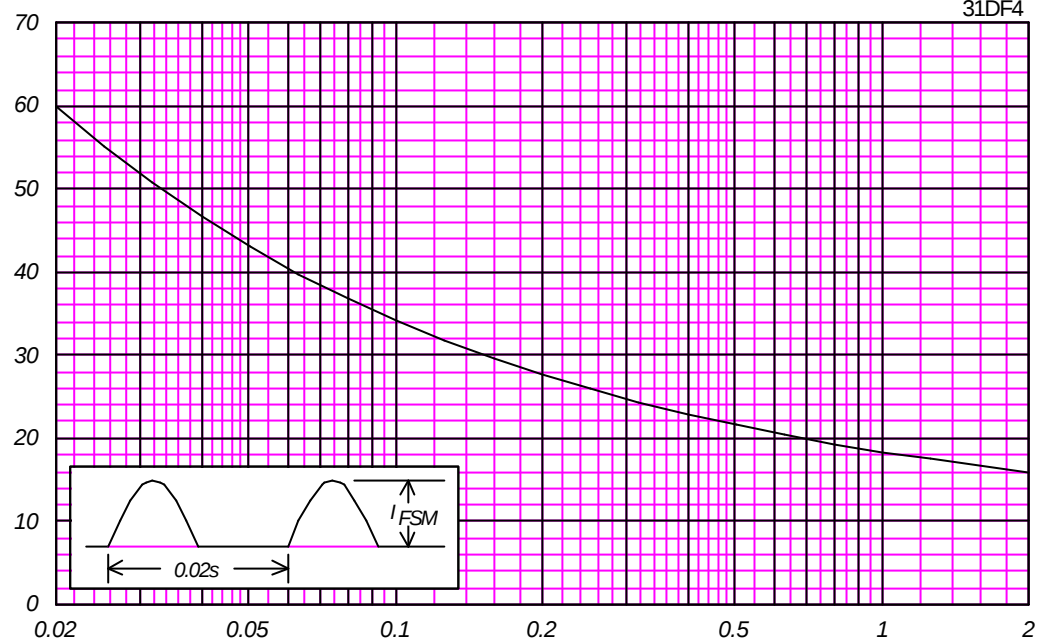
f=50Hz, Half Sine Wave, Non-Repetitive, No Load

31DF4

サ
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順
電
流

(A)

SURGE FORWARD CURRENT (A)



TIME (s)

時間 (s)