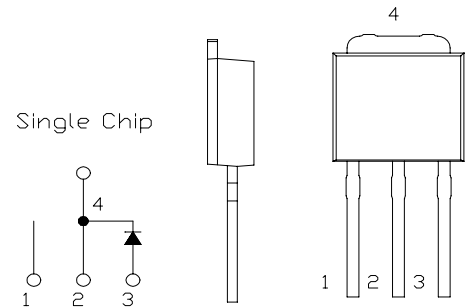


# FRD Type : EA31FS4

## OUTLINE DRAWING

### FEATURES

- \* TO-251AA Case
- \* Ultra – Fast Recovery
- \* Low Forward Voltage drop
- \* Low Power Loss
- \* High Surge Capability
- \* 200 Volts thru 600 Volts Types Available



### Maximum Ratings

Approx Net Weight:0.35g

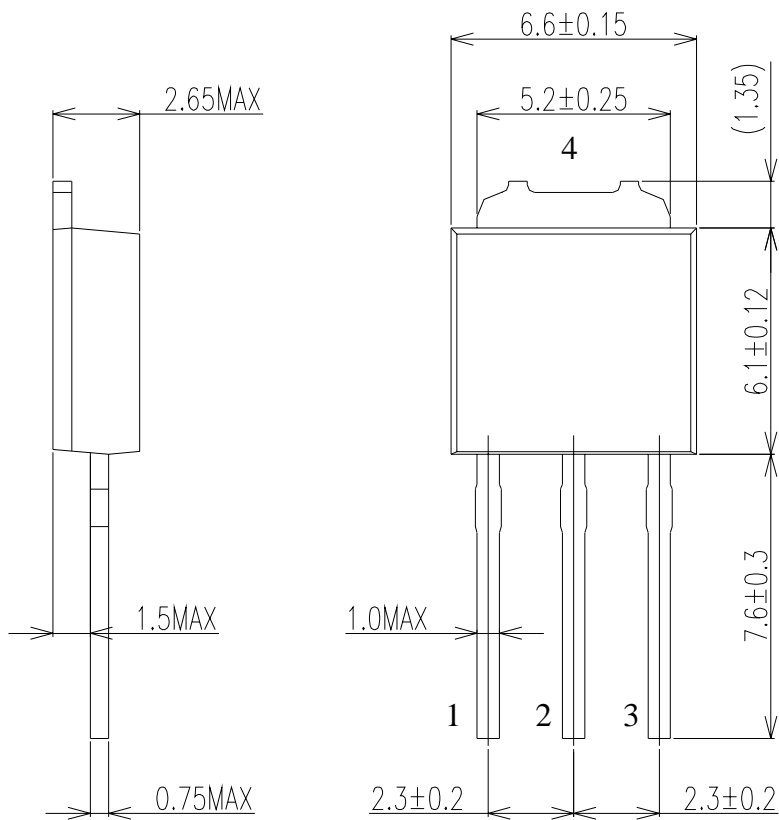
Rating		Symbol	EA31FS4			Unit
Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	400			V
Non-repetitive Peak Reverse Voltage		V <sub>RSM</sub>	440			V
Average Rectified Output Current	P.C.Board mounted *	I <sub>O</sub>	1.4	Ta=34°C	50Hz Half Sine Wave Resistive Load	A
	-		3.0	Tc=125°C		
RMS Forward Current		I <sub>F(RMS)</sub>	4.71			A
Surge Forward Current		I <sub>FSM</sub>	45	50Hz Half Sine Wave,1cycle, Non-repetitive		A
Operating JunctionTemperature Range		T <sub>jw</sub>	- 40 to + 150			°C
Storage Temperature Range		T <sub>stg</sub>	- 40 to + 150			°C

### Electrical • Thermal Characteristics

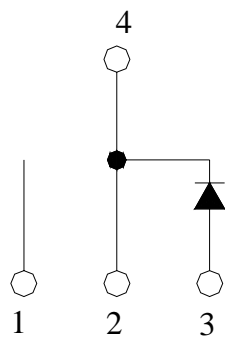
Characteristics		Symbol	Conditions	Min	Typ	Max	Unit
Peak Reverse Current		$I_{RM}$	$T_j=25^{\circ}\text{C}, V_{RM}=V_{RRM}$ per Arm	-	-	20	$\mu\text{A}$
Peak Forward Voltage		$V_{FM}$	$T_j=25^{\circ}\text{C}, I_{FM}= 3 \text{ A}$ per Arm	-	-	1.25	V
Reverse Recovery Time		$t_{rr}$	$I_{FM}= 3 \text{ A}$ , $-di/dt= 50 \text{ A}/\mu\text{s}$ , $T_a= 25^{\circ}\text{C}$	-	-	30	ns
Thermal Resistance	Junction to Ambient	$R_{th(j-a)}$	P.C.Board mounted *	-	-	80	$^{\circ}\text{C}/\text{W}$
	Junction to Case	$R_{th(j-c)}$	-	-	-	6	$^{\circ}\text{C}/\text{W}$

\* Print Land = 20x20 mm

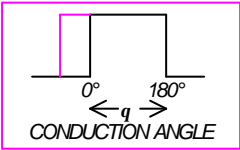
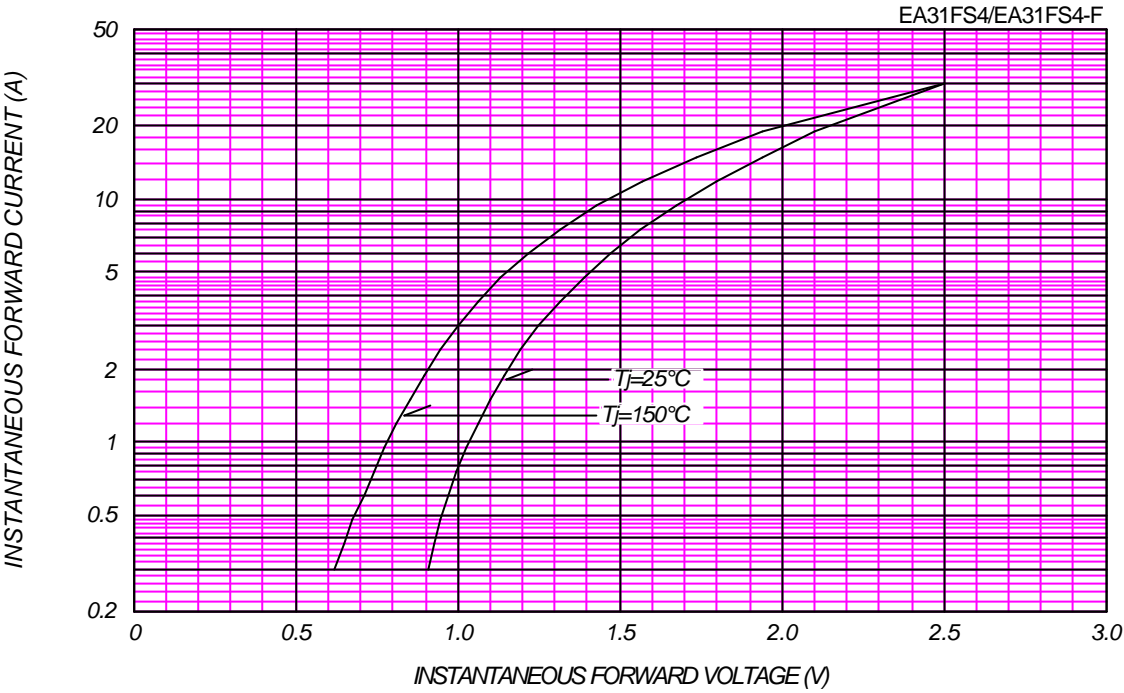
### EA31FS4 OUTLINE DRAWING (Dimensions in mm)



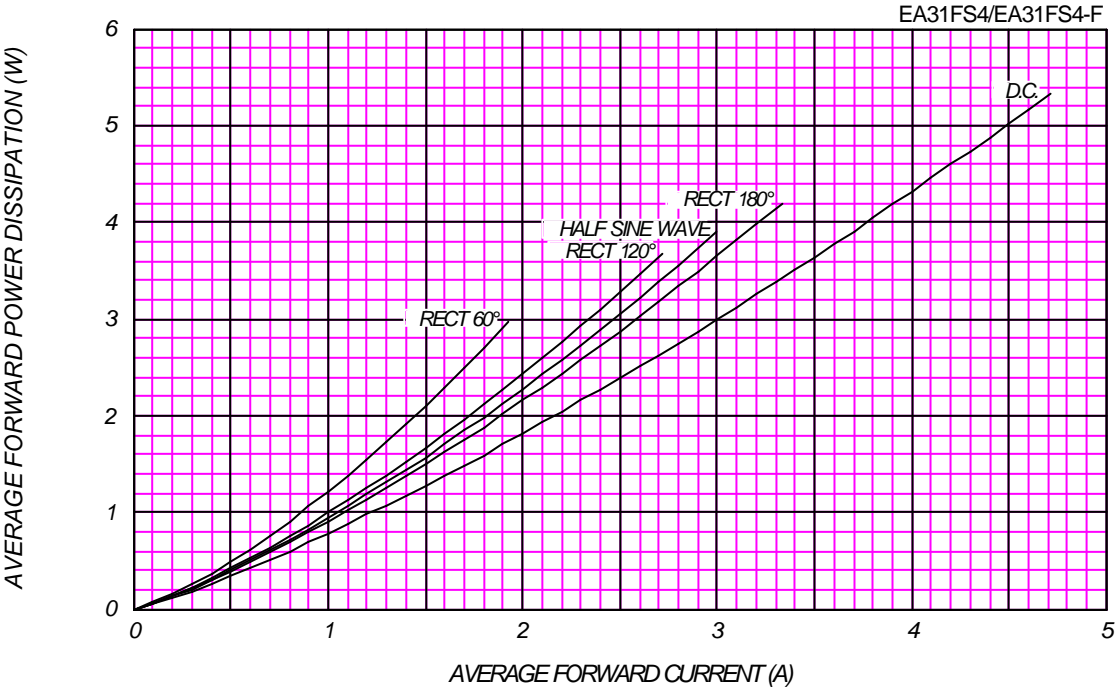
Single

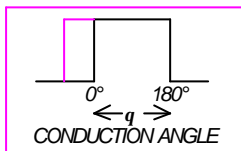


FORWARD CURRENT VS. VOLTAGE

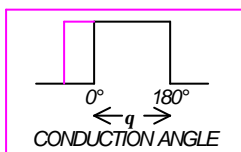
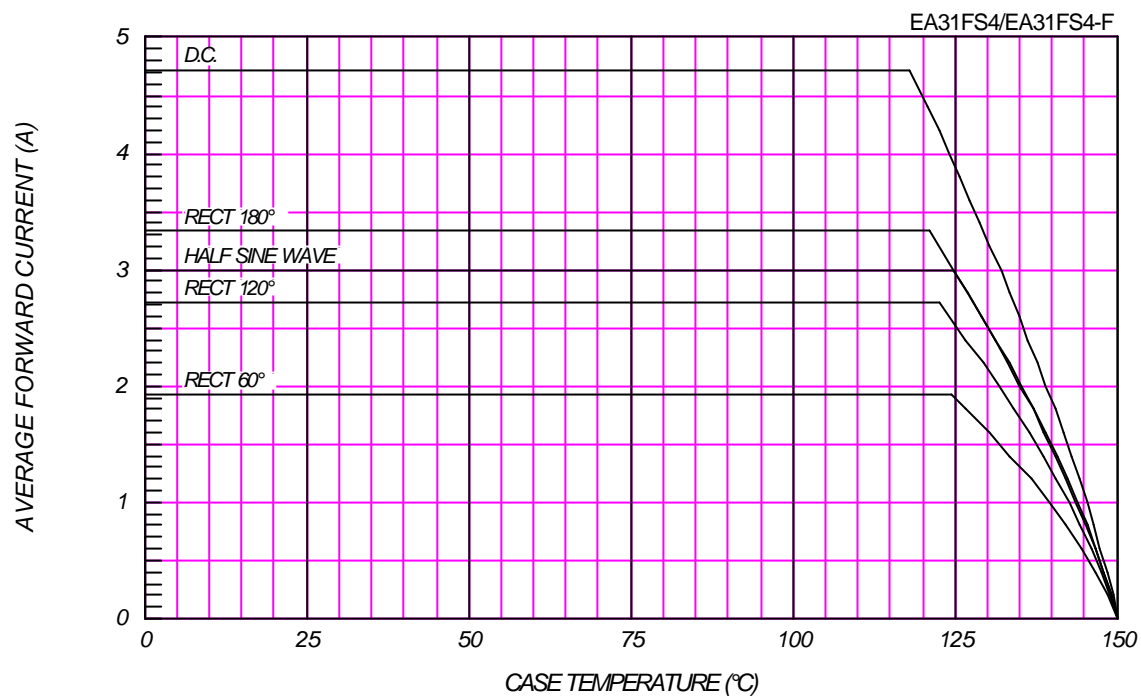


AVERAGE FORWARD POWER DISSIPATION



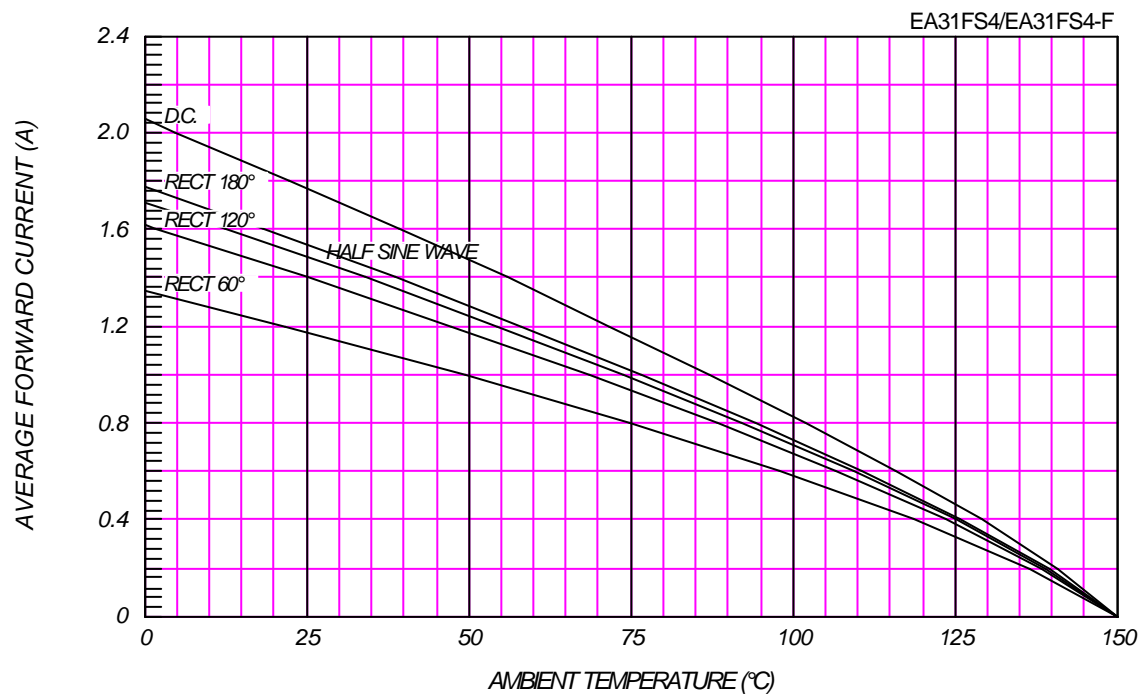


AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

P.C. Board mounted (Print land=20x20mm)



# SURGE CURRENT RATINGS

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

EA31FS4/EA31FS4-F

