

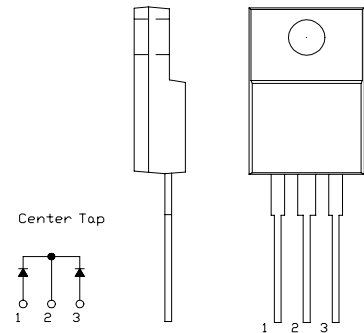
**10A 300V 30ns**
**FRD Type : FCU10A30**

OUTLINE DRAWING

For Power Factor Improvement High Frequency Rectification

**FEATURES**

- \* Fully Molded Isolation
- \* Dual Diodes – Cathode Common
- \* Ultra – Fast Recovery
- \* Low Forward Voltage Drop
- \* High Surge Capability


**Maximum Ratings**

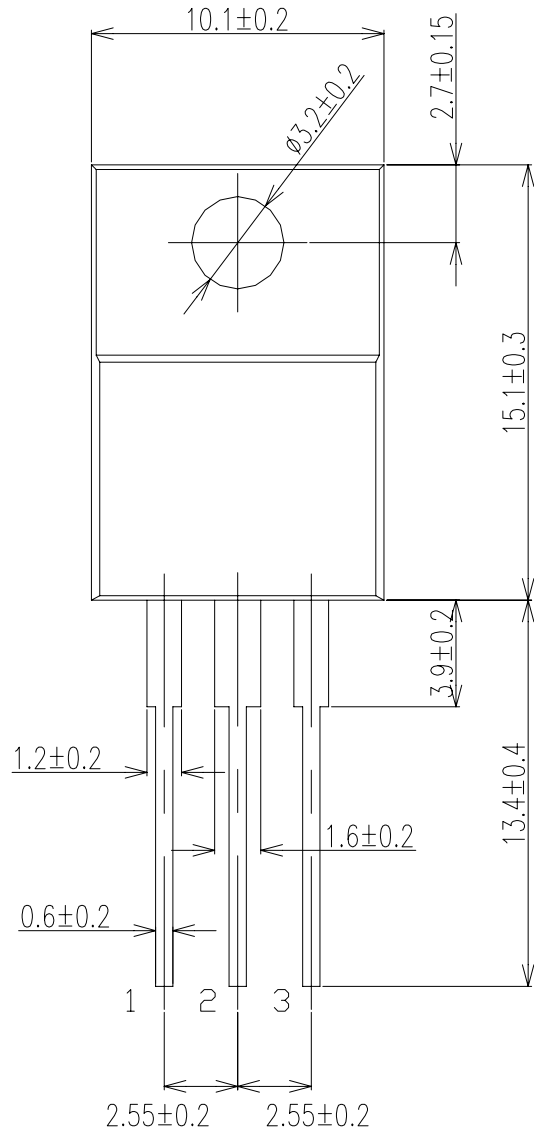
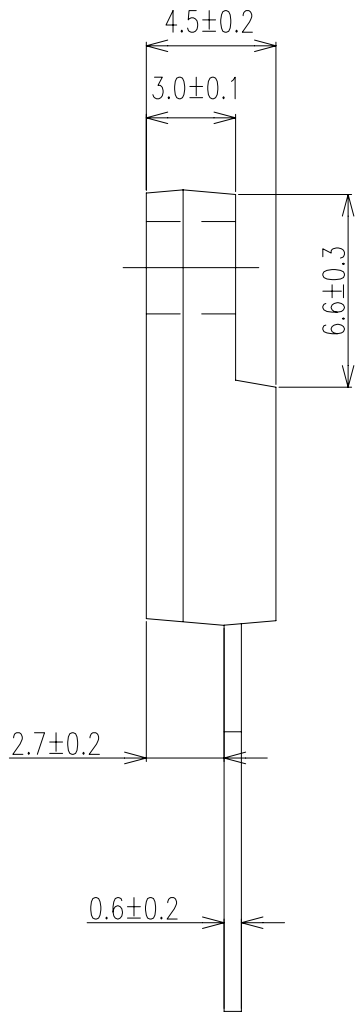
Approx Net Weight:1.75g

Rating	Symbol	FCU10A30		Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	300		V
Average Rectified Output Current	$I_o$	10	$T_c=109^{\circ}C$ 50 Hz, Full Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	11.1		A
Surge Forward Current	$I_{FSM}$	100	50 Hz Full Sine Wave, 1 cycle Non-repetitive	A
Operating Junction Temperature Range	$T_{jw}$	- 40 to + 150		$^{\circ}C$
Storage Temperature Range	$T_{stg}$	- 40 to + 150		$^{\circ}C$
Mounting torque		0.5	Recommended value	N•m

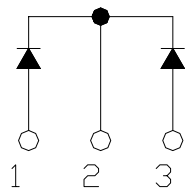
**Electrical • Thermal Characteristics**

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j=25^{\circ}C, V_{RM}=V_{RRM}$ per Arm	-	-	25	$\mu A$
Peak Forward Voltage	$V_{FM}$	$T_j=25^{\circ}C, I_{FM}=5A$ per Arm	-	1.12	1.30	V
Reverse Recovery Time	$t_{rr}$	$I_{FM}= 5 A,$ $-di/dt= 50 A/\mu s, T_a= 25^{\circ}C$	-	19	30	ns
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	3	$^{\circ}C/W$
	$R_{th(c-f)}$	Case to Fin	-	-	1.5	

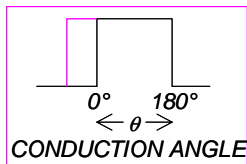
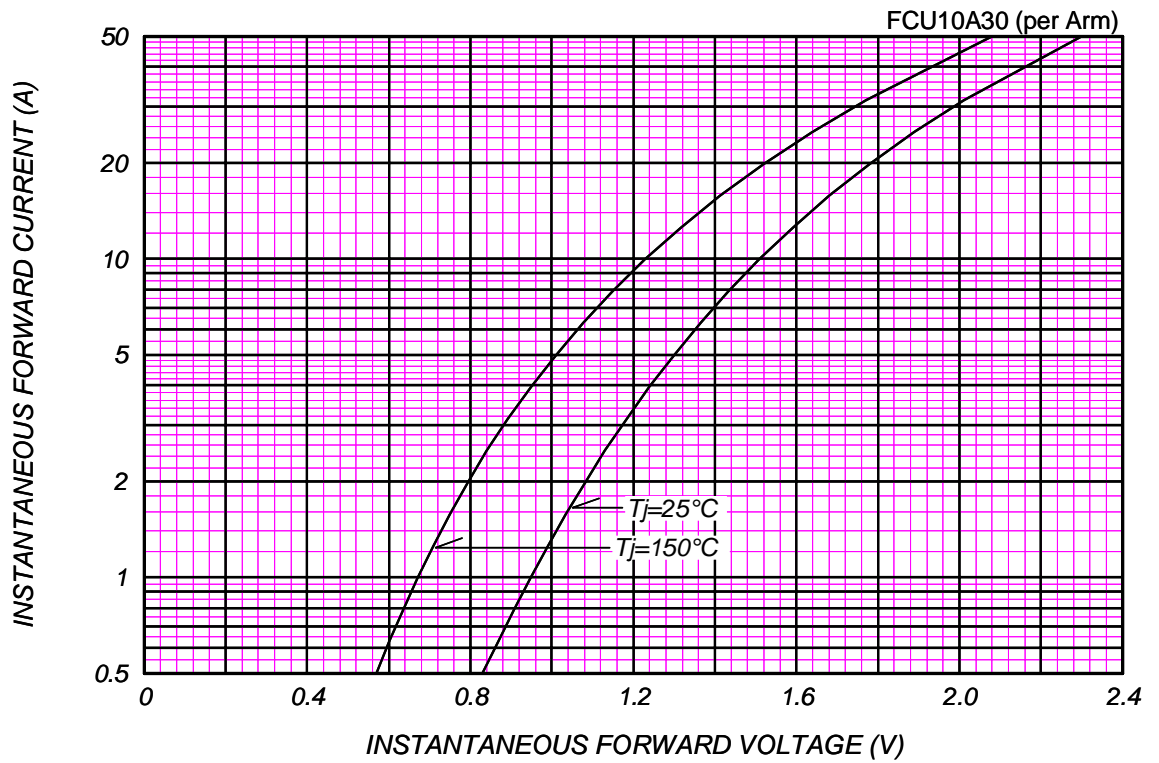
FCU\_A\_ OUTLINE DRAWING (Dimensions in mm)



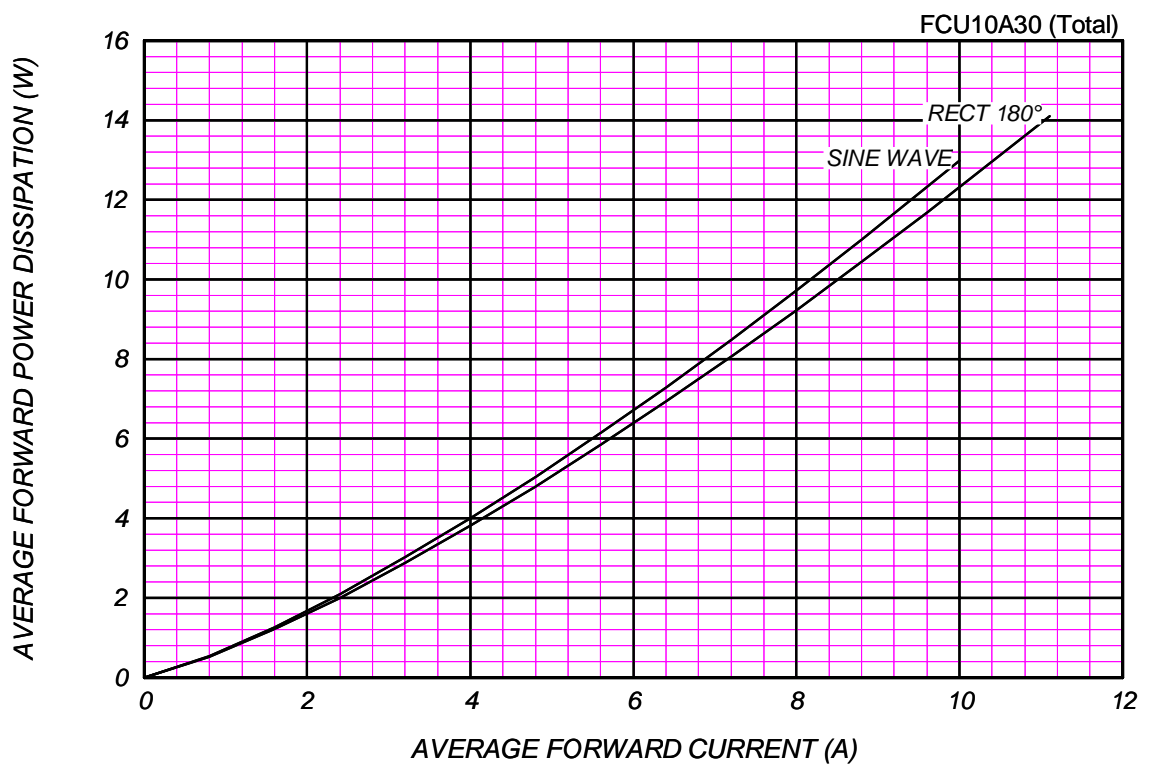
Center Tap

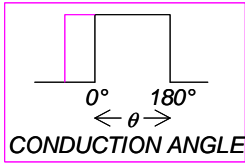


### FORWARD CURRENT VS. VOLTAGE



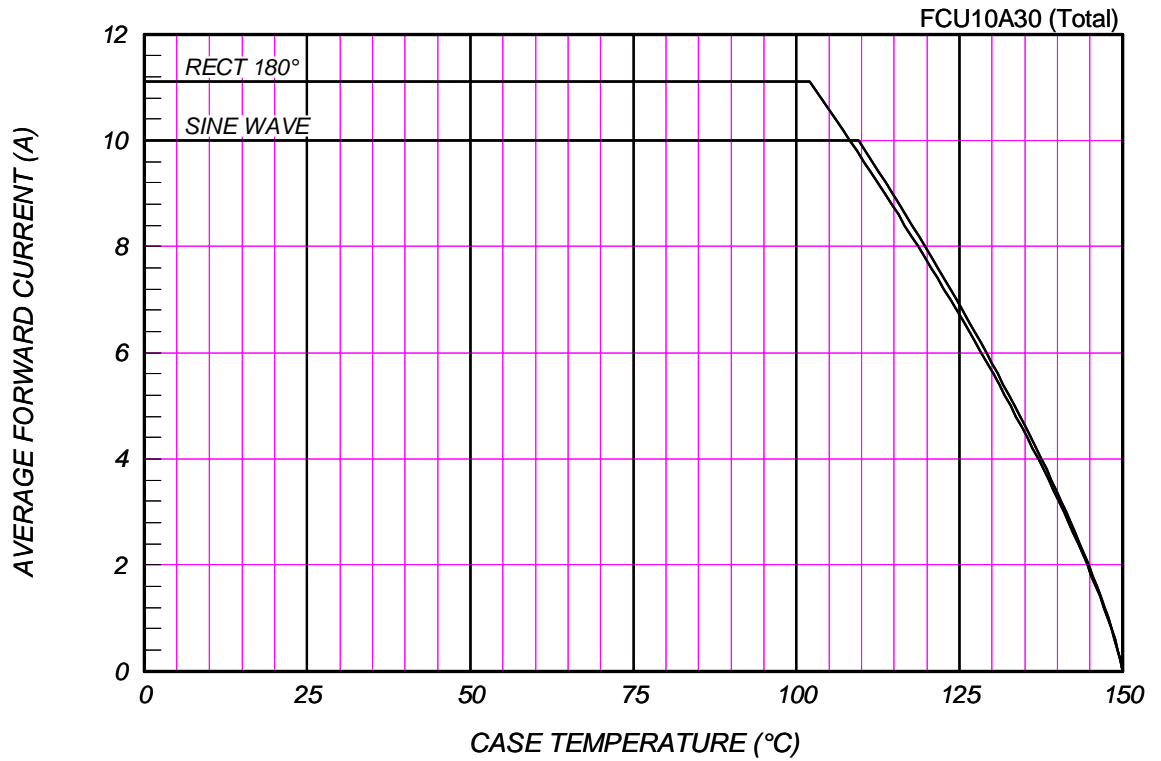
### AVERAGE FORWARD POWER DISSIPATION





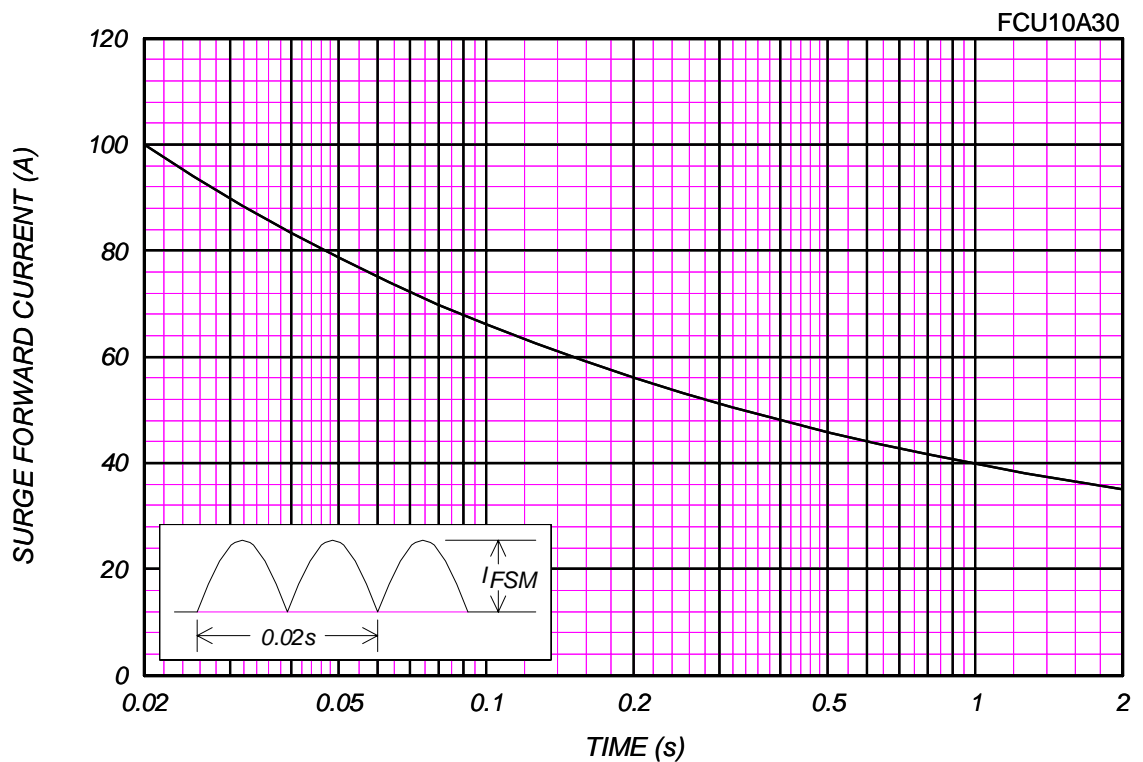
### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=300V$



### SURGE CURRENT RATINGS

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



# RMS SURGE CURRENT RATINGS

Ta=40°C, Non-Repetitive, No Load

FCU10A30

