

10A 300V 30ns

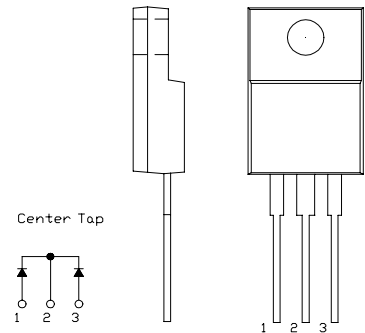
FRD Type : **FCU10A30**

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

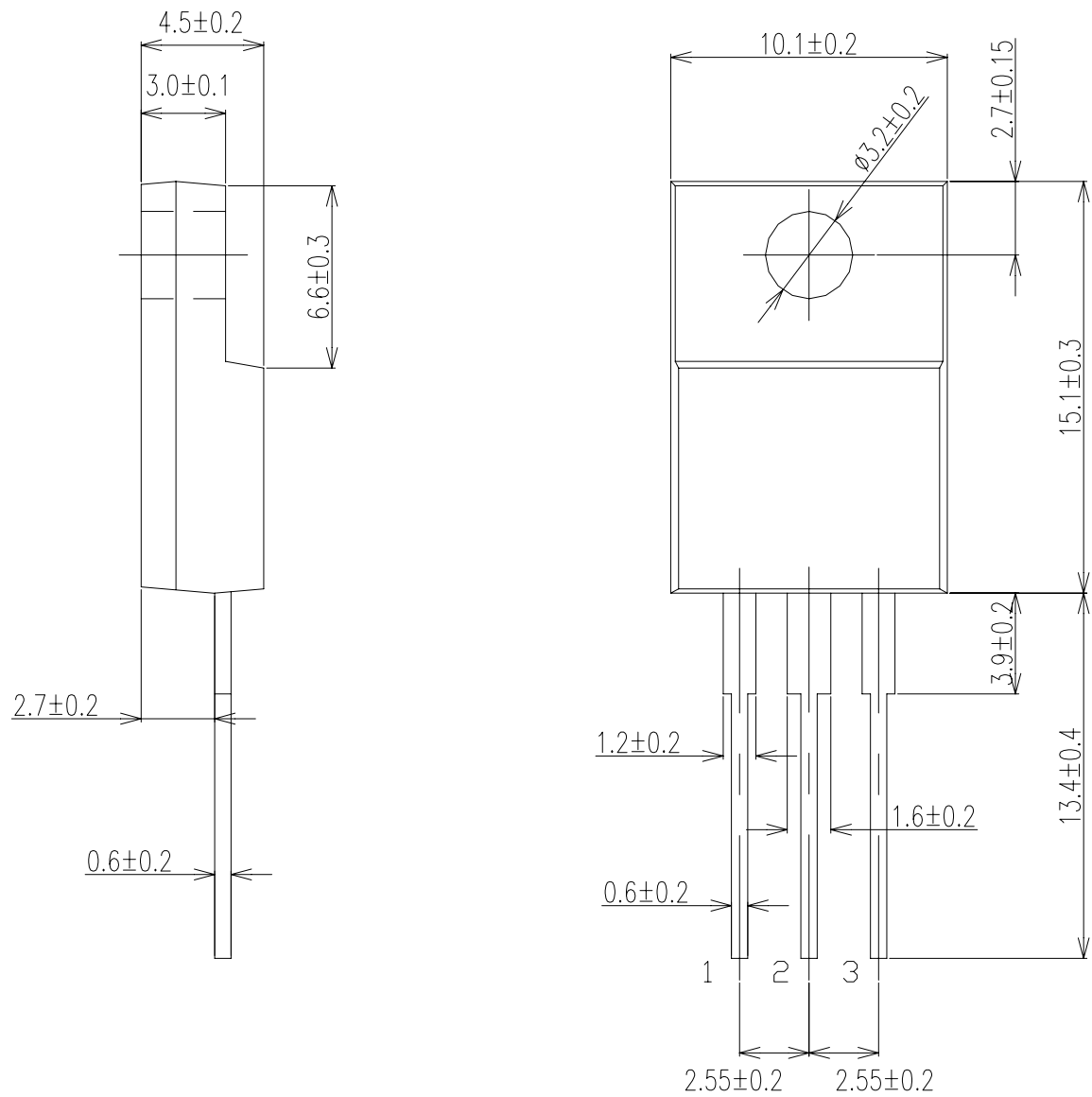
Approx Net Weight:1.75g

Rating	Symbol	FCU10A30			Unit
Repetitive Peak Reverse Voltage	V _{RRM}	300			V
Average Rectified Output Current	I _O	10	Tc=109℃	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,1cycle Non-repetitive		A
Operating JunctionTemperature Range	T _{jw}	- 40 to + 150			℃
Storage Temperature Range	T _{stg}	- 40 to + 150			℃
Mounting torque		0.5	Recommended value		N•m

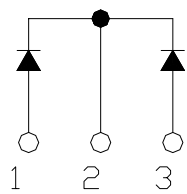
Electrical • Thermal Characteristics

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

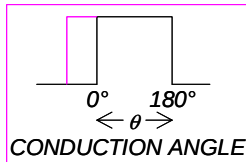
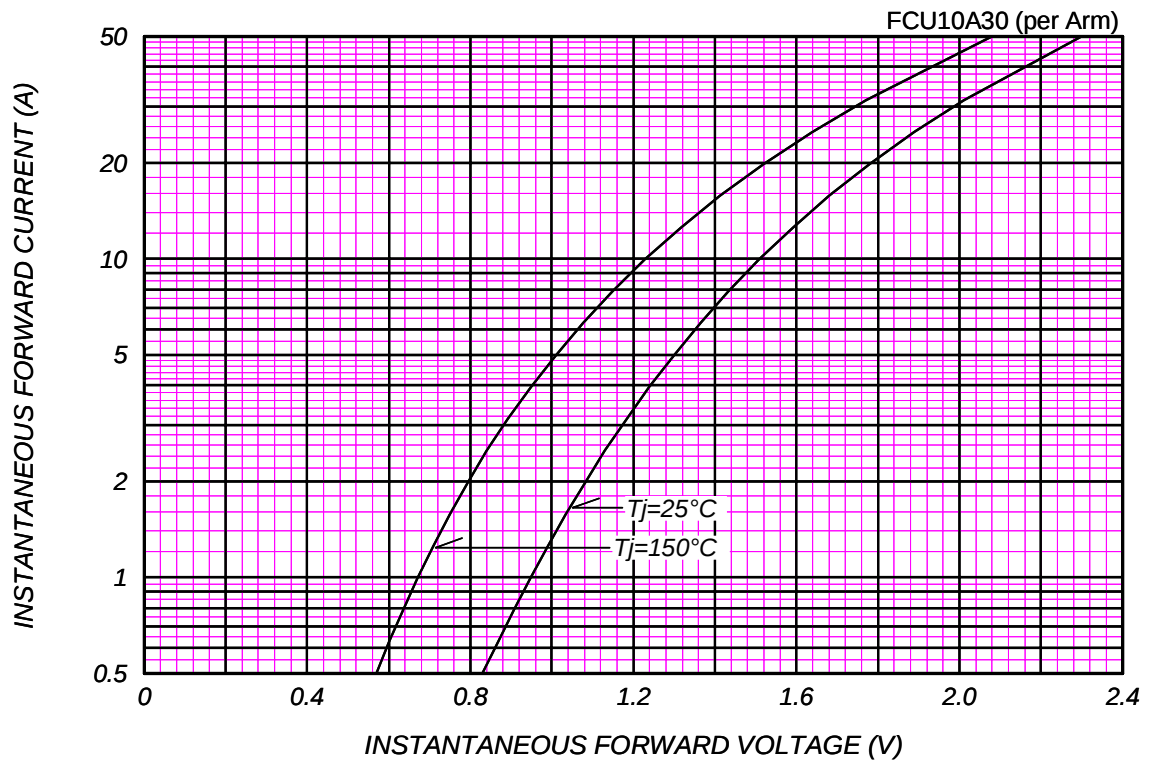
FCU_A_ OUTLINE DRAWING (Dimensions in mm)



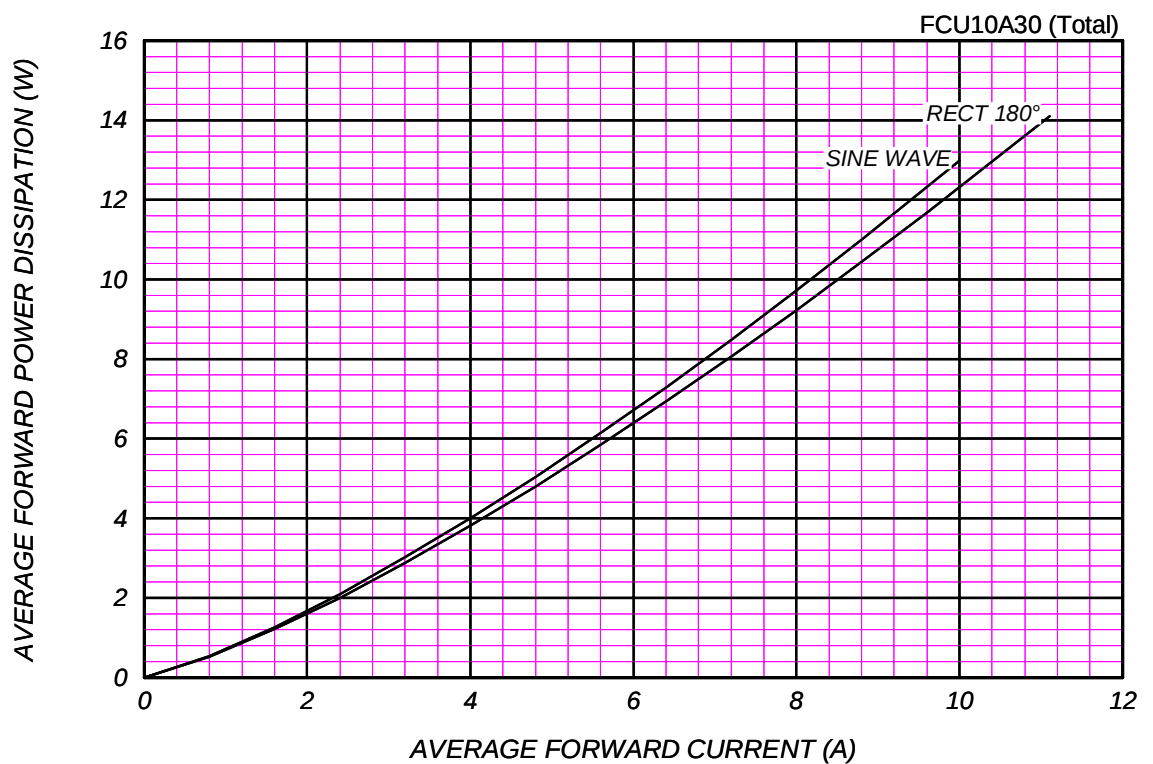
Center Tap

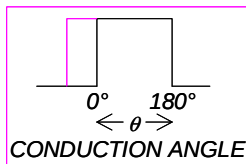


FORWARD CURRENT VS. VOLTAGE



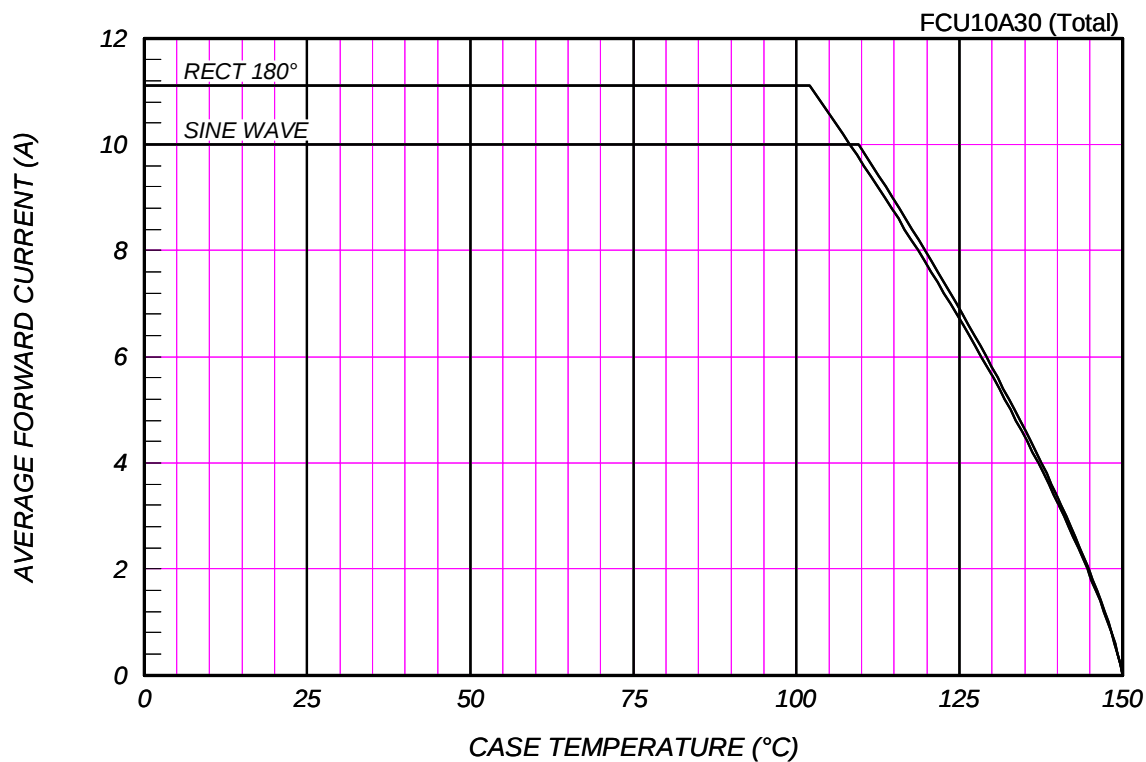
AVERAGE FORWARD POWER DISSIPATION





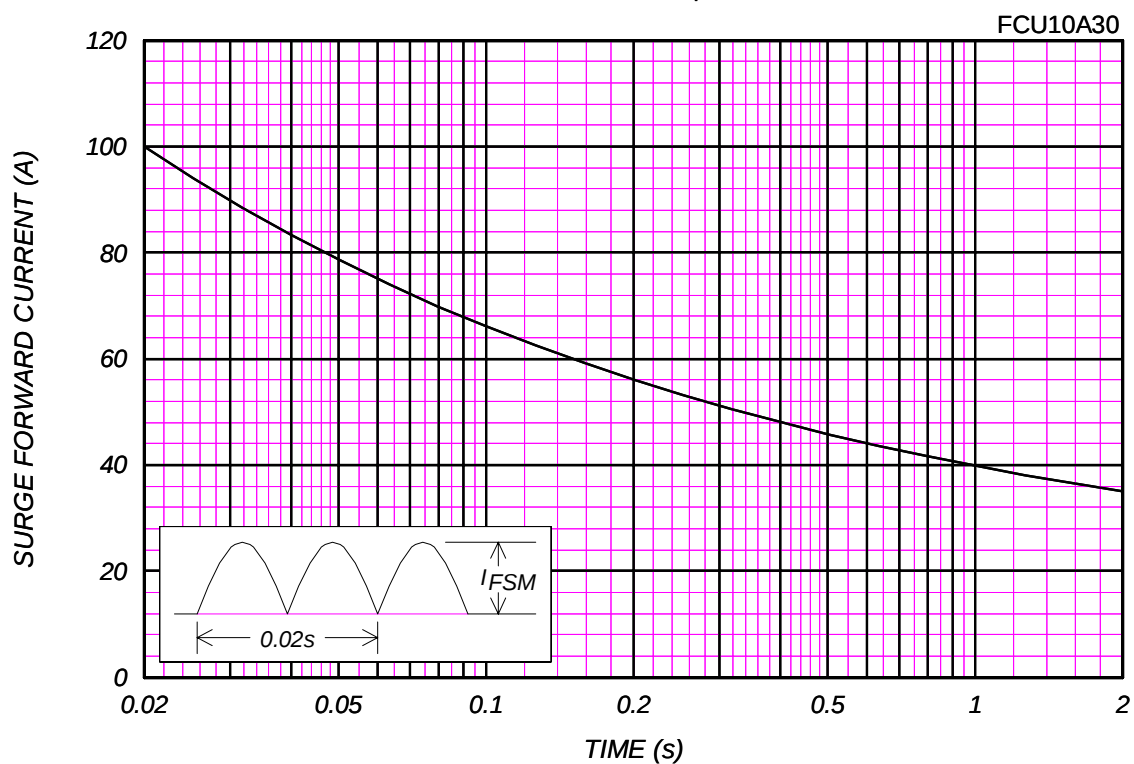
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=300V$



SURGE CURRENT RATINGS

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



RMS SURGE CURRENT RATINGS

Ta=40°C, Non-Repetitive, No Load

FCU10A30

