

**20A 300V 30ns**
**FRD Type : TCU20A30-11A**

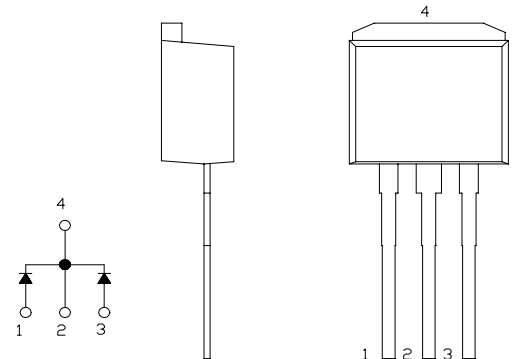
OUTLINE DRAWING

For Power Factor Improvement High Frequency

Rectification

**FEATURES**

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


**Maximum Ratings**

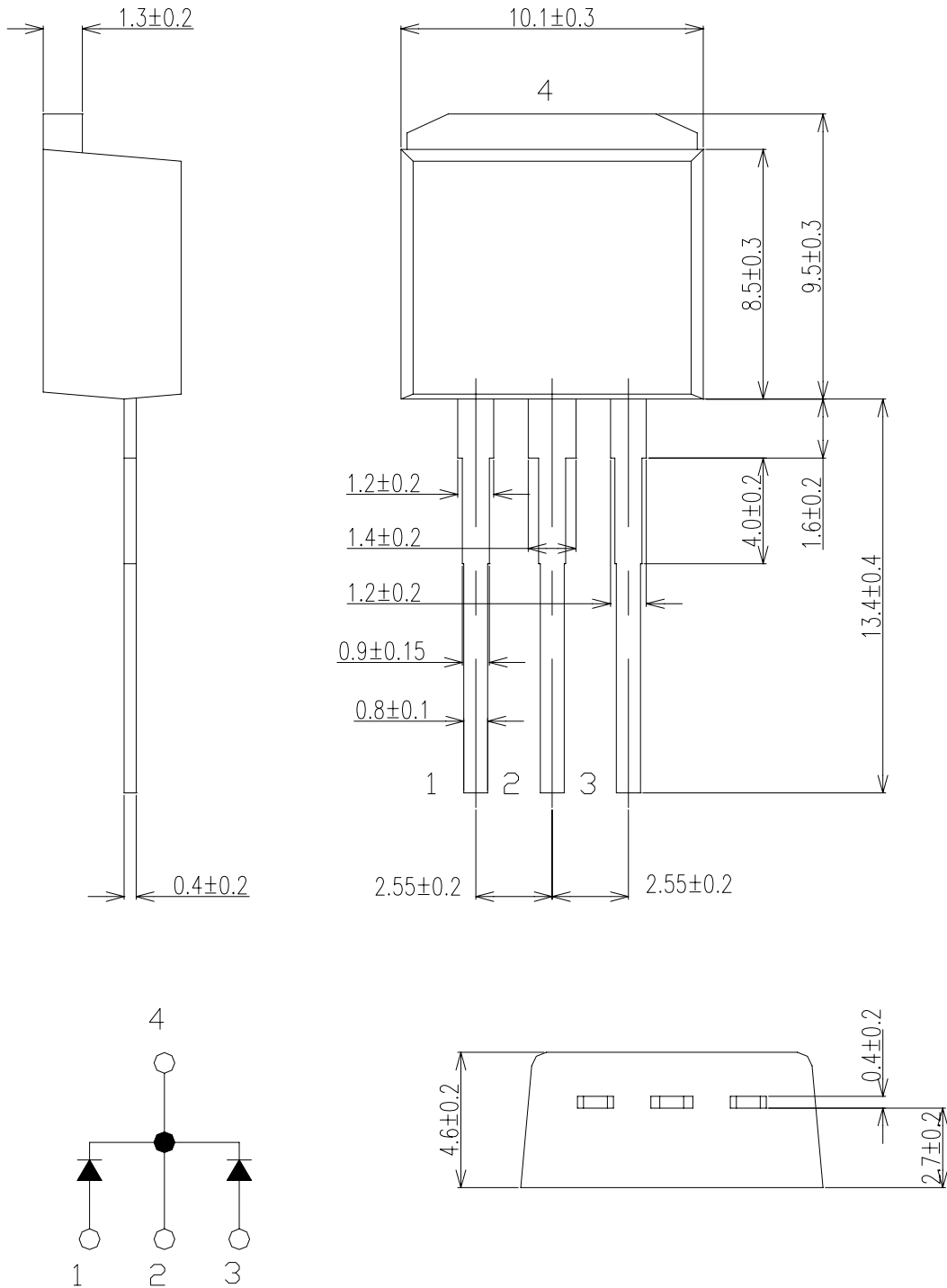
Approx Net Weight:1.45g

Rating	Symbol	TCU20A30-11A		Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	300		V
Average Rectified Output Current	$I_O$	20	$T_c=90^{\circ}\text{C}$ 50 Hz, Full Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	22.2		A
Surge Forward Current	$I_{FSM}$	120	50 Hz Full Sine Wave, 1 cycle Non-repetitive	A
Operating Junction Temperature Range	$T_{jw}$	- 40 to + 150		$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	- 40 to + 150		$^{\circ}\text{C}$

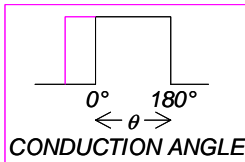
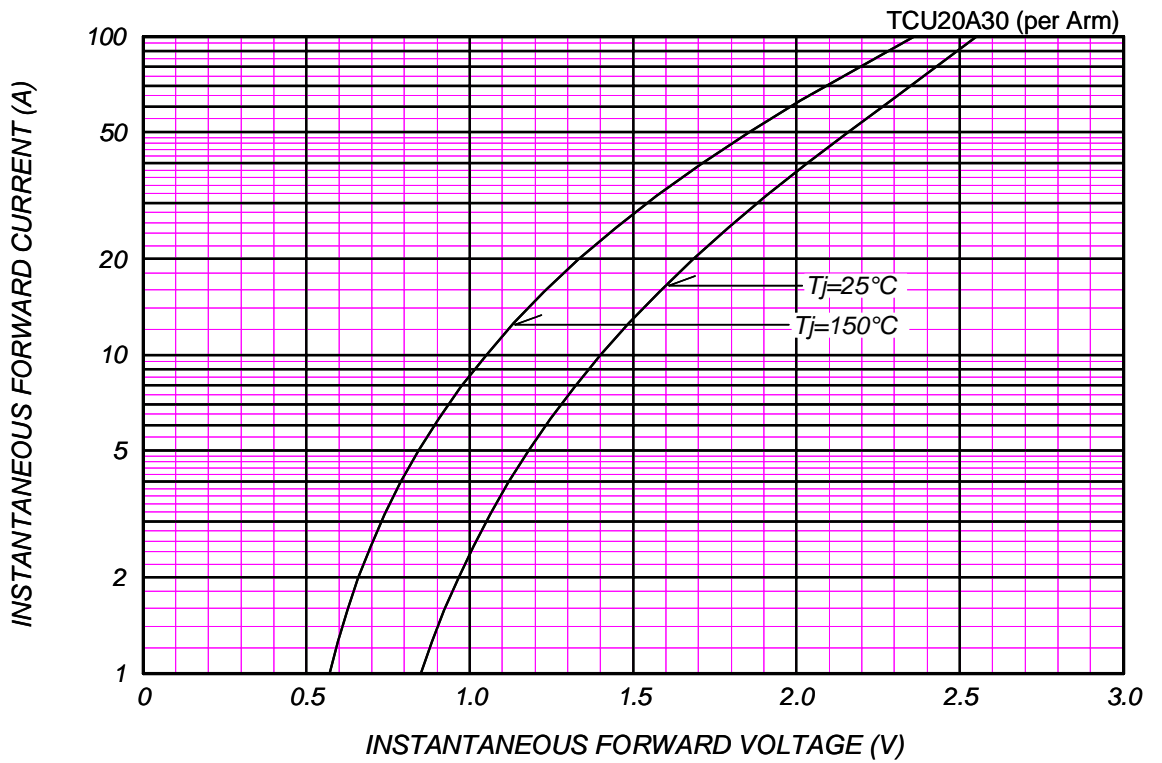
**Electrical • Thermal Characteristics**

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j=25^{\circ}\text{C}, V_{RM}=V_{RRM}$ per Arm	-	-	25	$\mu\text{A}$
Peak Forward Voltage	$V_{FM}$	$T_j=25^{\circ}\text{C}, I_{FM}=10\text{A}$ per Arm	-	1.2	1.4	V
Reverse Recovery Time	$t_{rr}$	$I_{FM}=10\text{A}$ , $-di/dt=50\text{A}/\mu\text{s}$ , $T_a=25^{\circ}\text{C}$	-	23	35	ns
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	2	$^{\circ}\text{C}/\text{W}$

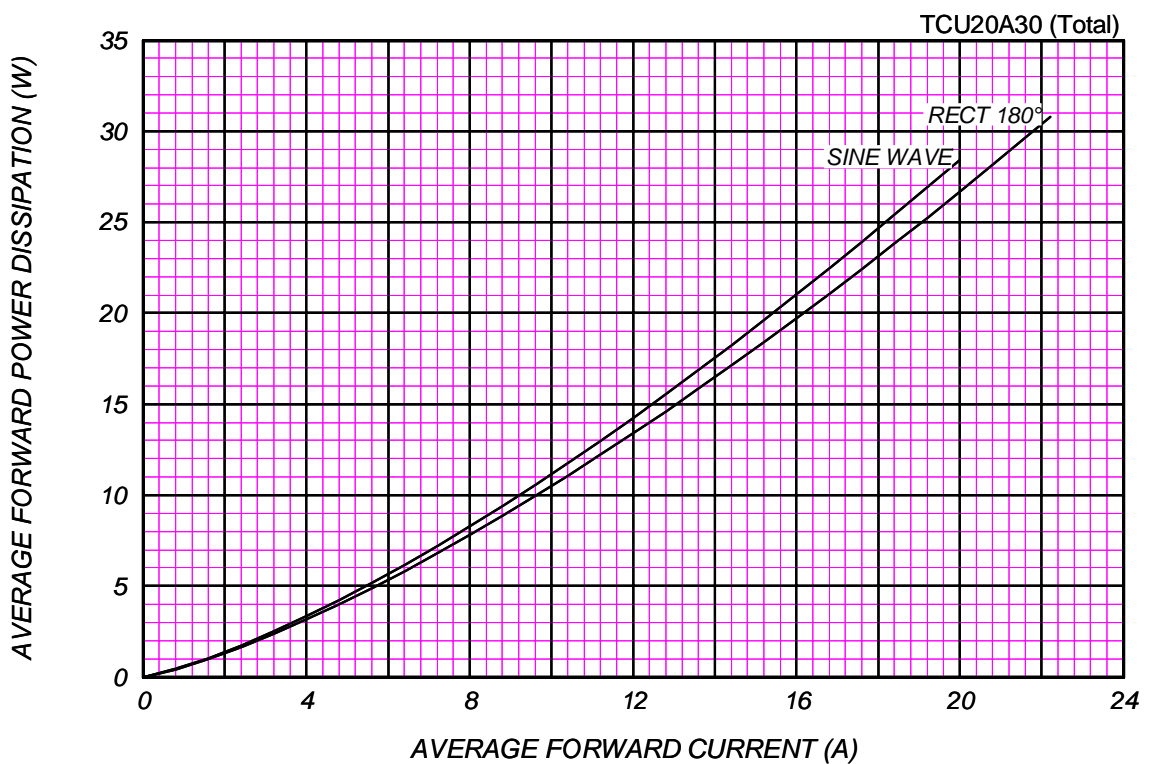
C\_T\_ 11A OUTLINE DRAWING (Dimensions in mm)

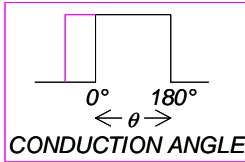


### FORWARD CURRENT VS. VOLTAGE



### AVERAGE FORWARD POWER DISSIPATION

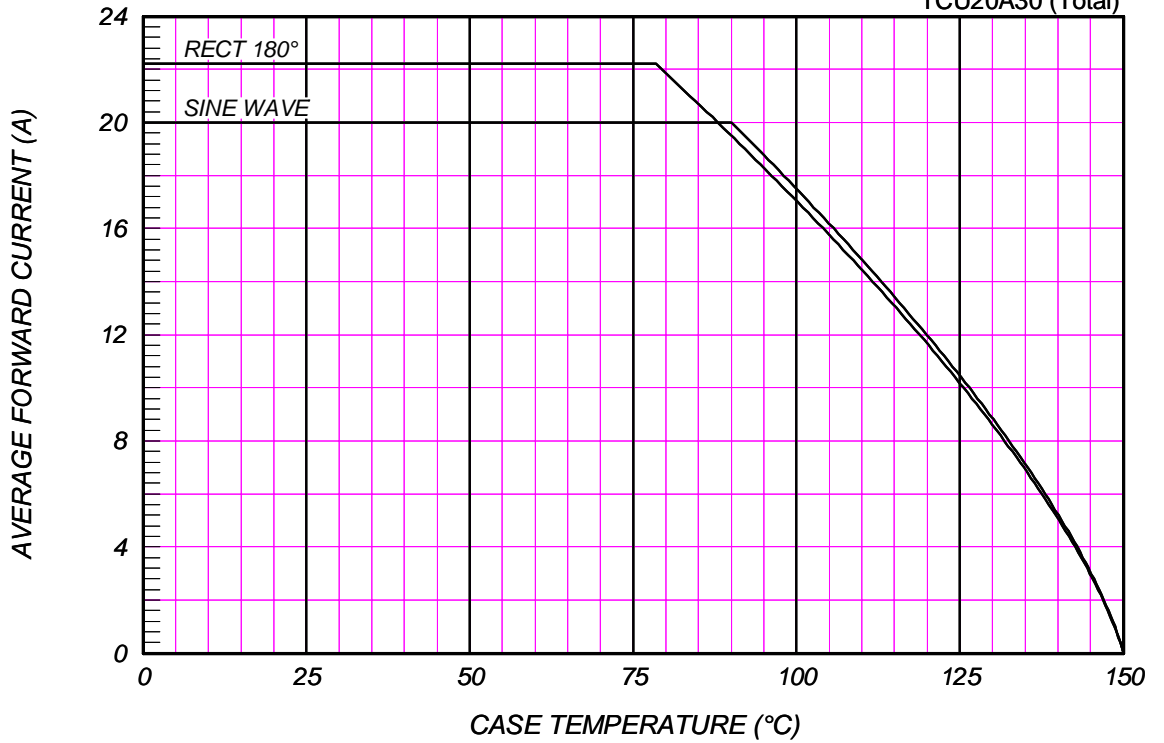




### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=300V$

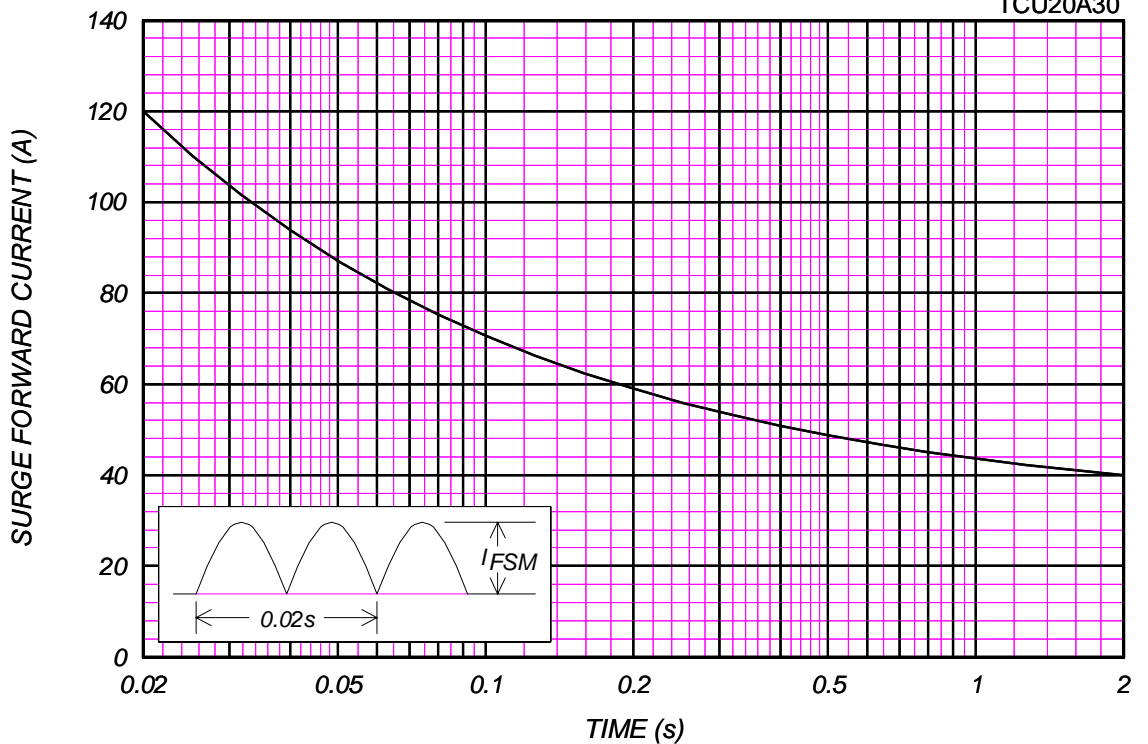
TCU20A30 (Total)



### SURGE CURRENT RATINGS

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

TCU20A30



# RMS SURGE CURRENT RATINGS

Ta=40°C, Non-Repetitive, No Load

TCU20A30

