

**30A 60V Cathode Common**

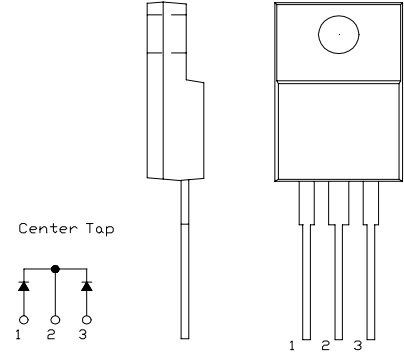
**SBD Type : FCQ30B06**

OUTLINE DRAWING

For High Frequency Rectification

FEATURES

- \* High VRM SBD
- \* Low Forward Voltage Drop and Low Noise
- \* Fully Molded Isolation
- \* Dual Diodes Cathode Common



Maximum Ratings

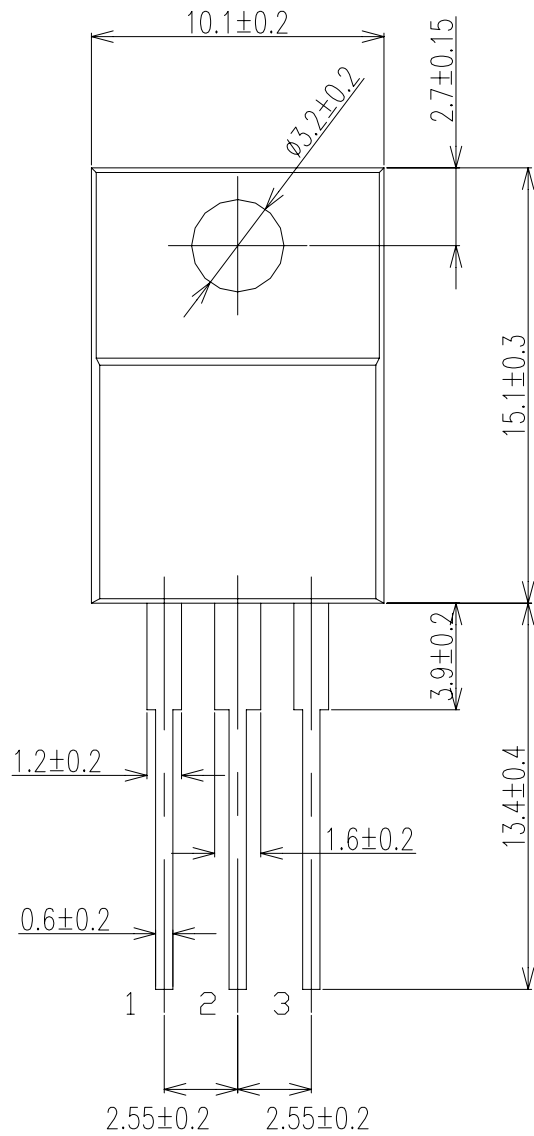
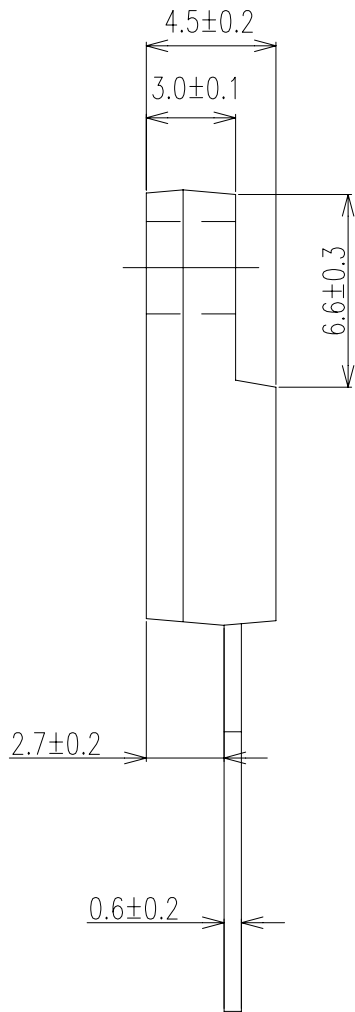
Approx Net Weight:1.75g

Rating	Symbol	FCQ30B06		Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	60		V
Average Rectified Output Current	$I_O$	30	$T_c=97^\circ\text{C}$ 50 Hz, Full Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	33.3		A
Surge Forward Current	$I_{FSM}$	150	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		$^\circ\text{C}$
Mounting torque		0.5	Recommended value	N•m

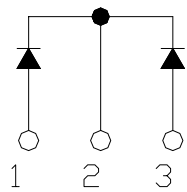
Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j=25^\circ\text{C}, V_{RM}=V_{RRM}$ per Diode	-	-	10	mA
Peak Forward Voltage	$V_{FM}$	$T_j=25^\circ\text{C}, I_{FM}=15\text{A}$ per Diode	-	-	0.69	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	1.5	$^\circ\text{C/W}$
	$R_{th(c-f)}$	Case to Fin	-	-	1.5	

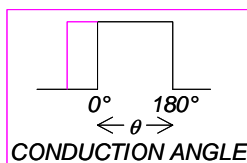
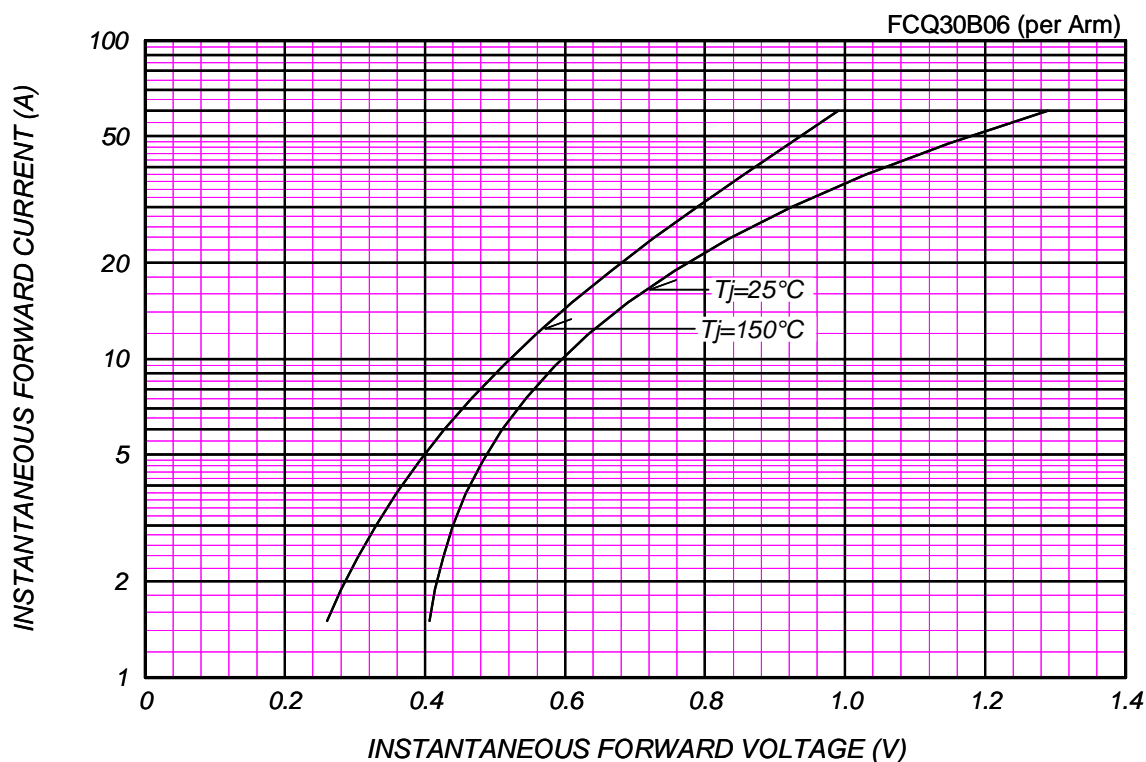
FCQ\_B\_ OUTLINE DRAWING (Dimensions in mm)



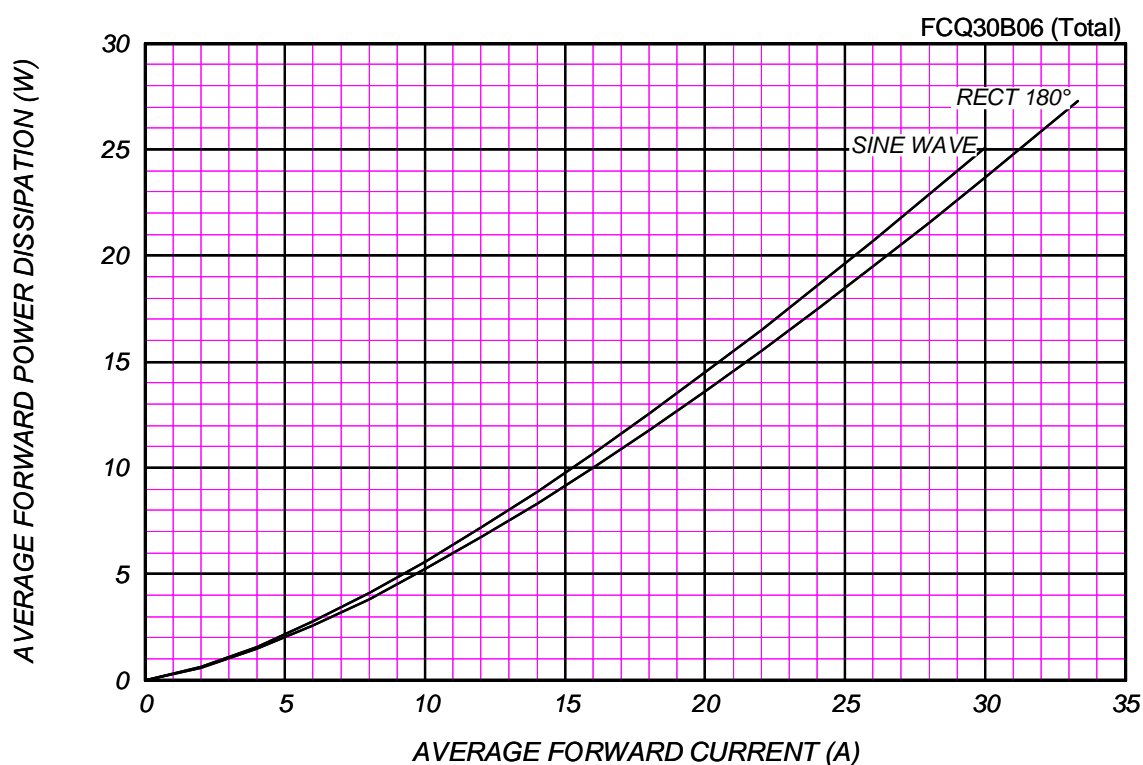
Center Tap



### FORWARD CURRENT VS. VOLTAGE



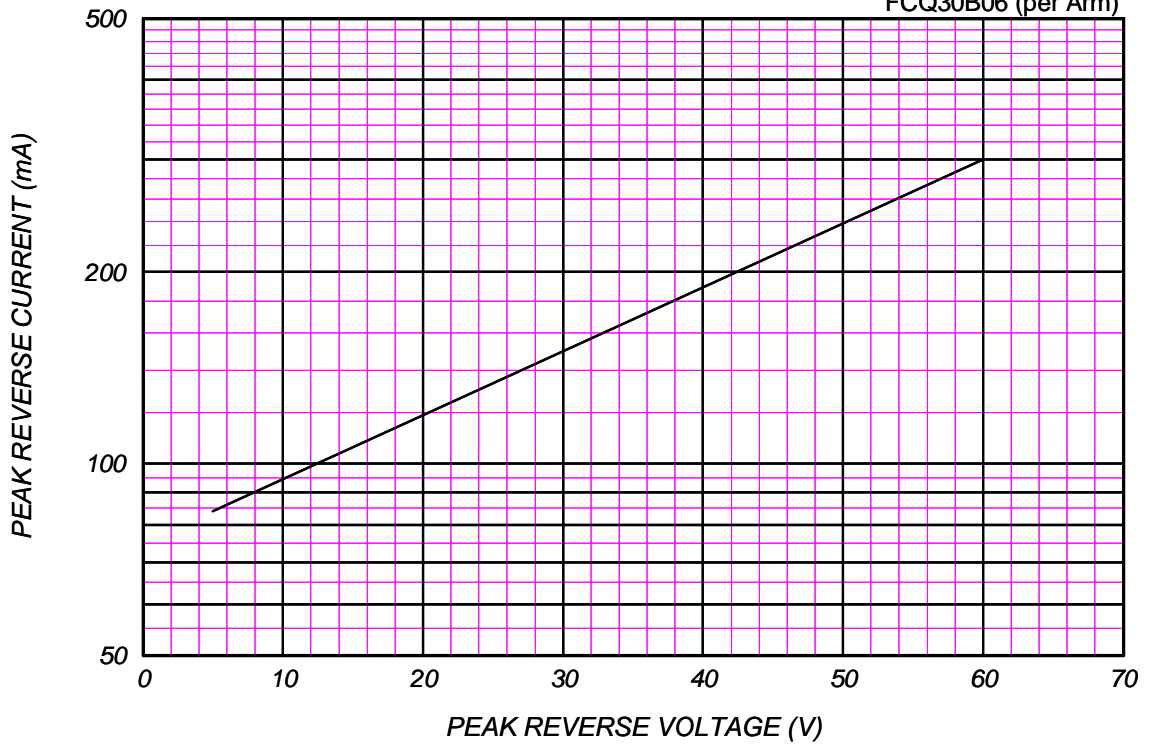
### AVERAGE FORWARD POWER DISSIPATION



### PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

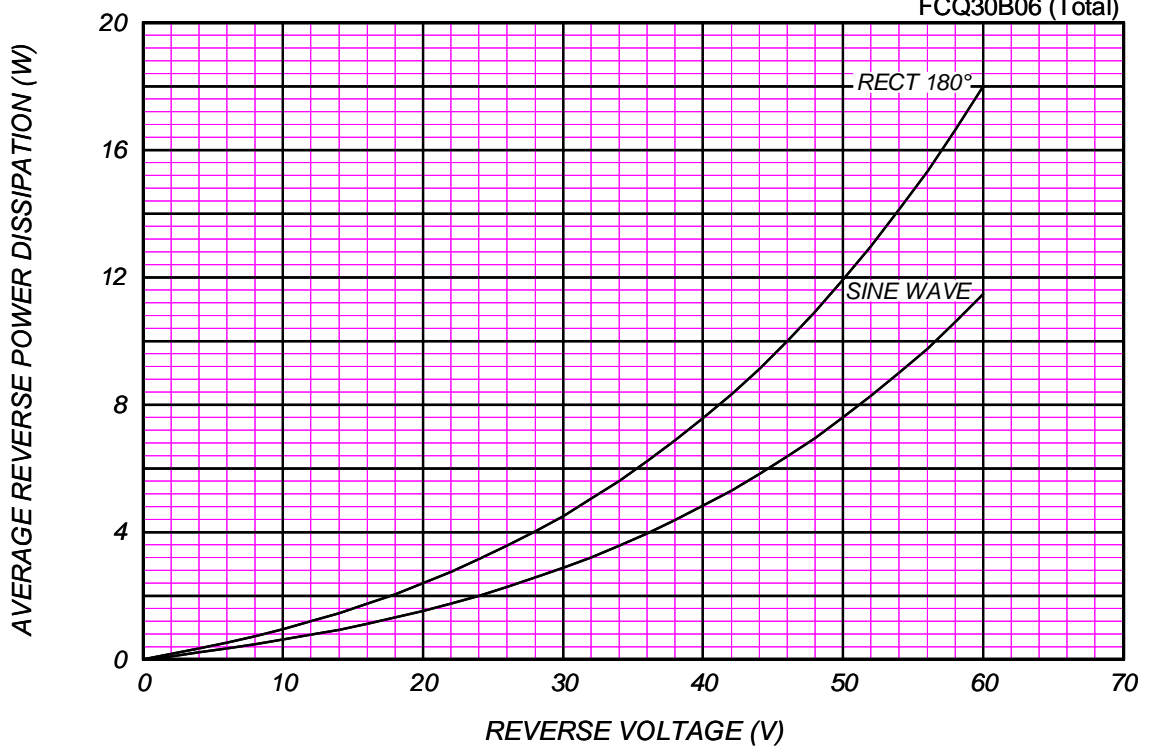
$T_j = 150\text{ }^\circ\text{C}$

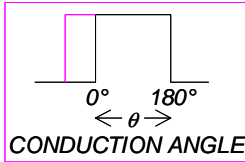
FCQ30B06 (per Arm)



### AVERAGE REVERSE POWER DISSIPATION

FCQ30B06 (Total)

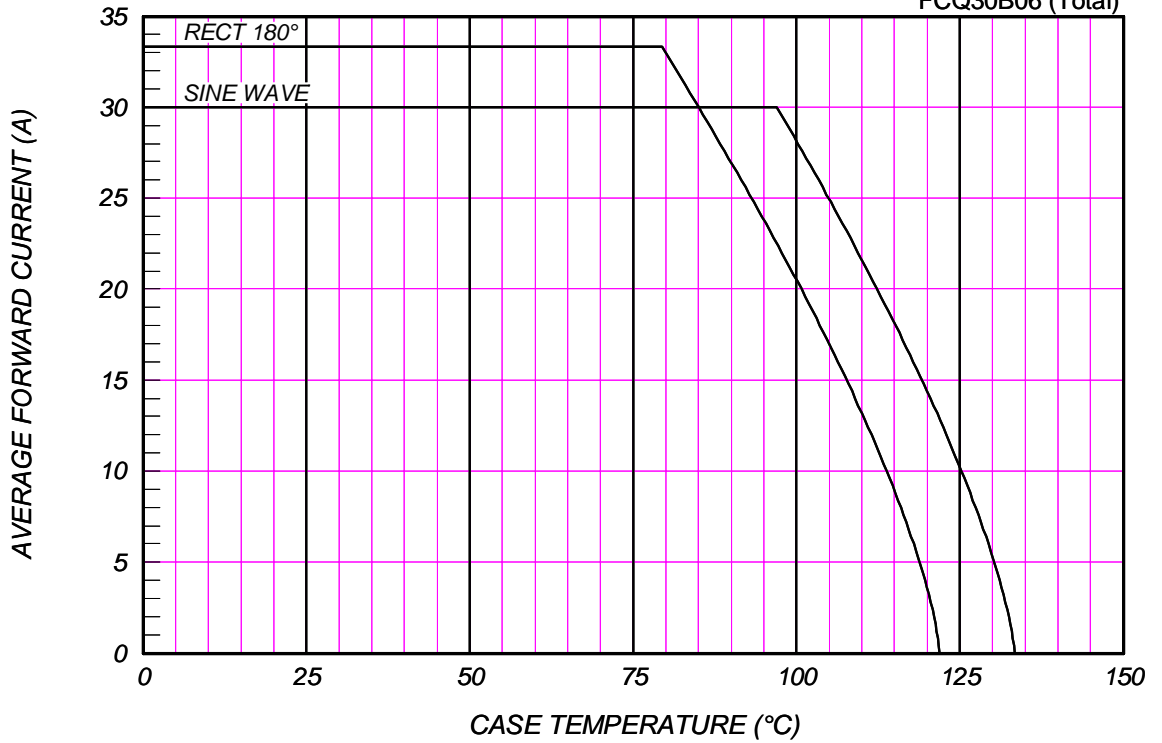




### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=60V$

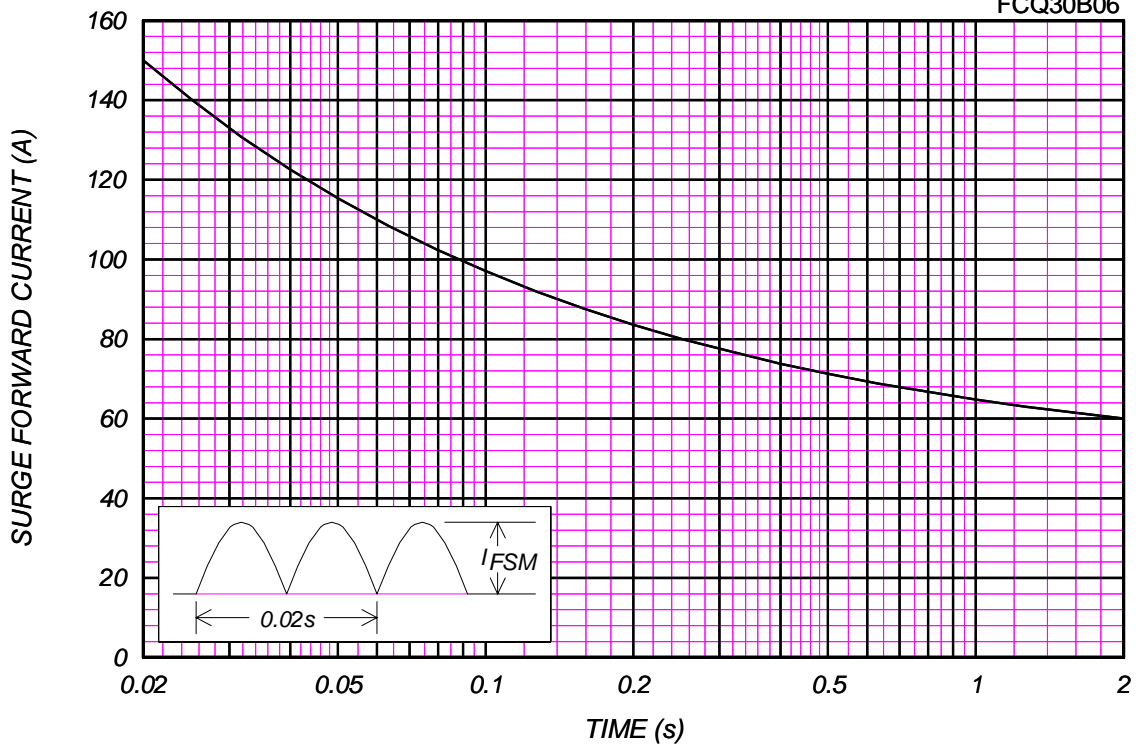
FCQ30B06 (Total)



### SURGE CURRENT RATINGS

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

FCQ30B06



# JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

$T_j=25^\circ\text{C}$ ,  $V_m=20mV_{\text{RMS}}$ ,  $f=100\text{kHz}$ , Typical Value

FCQ30B06 (per Arm)

