

30A 60V Cathode Common

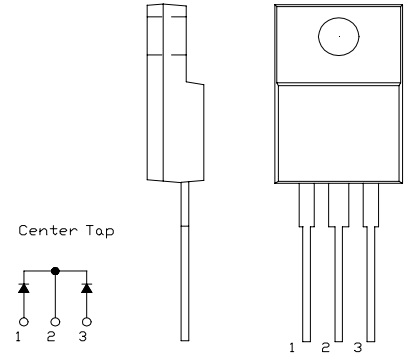
SBD Type : FCQ30B06

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

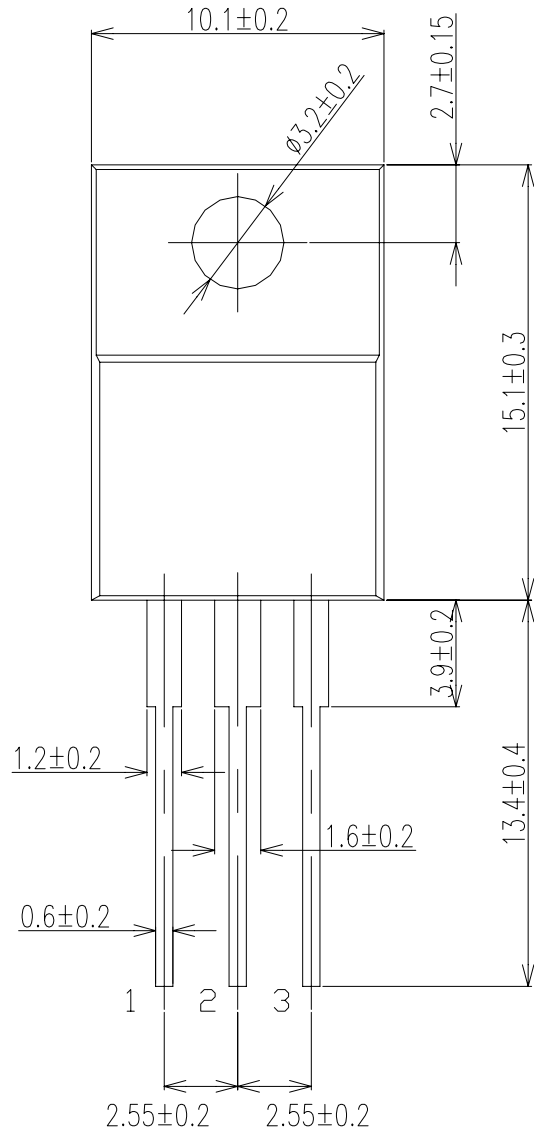
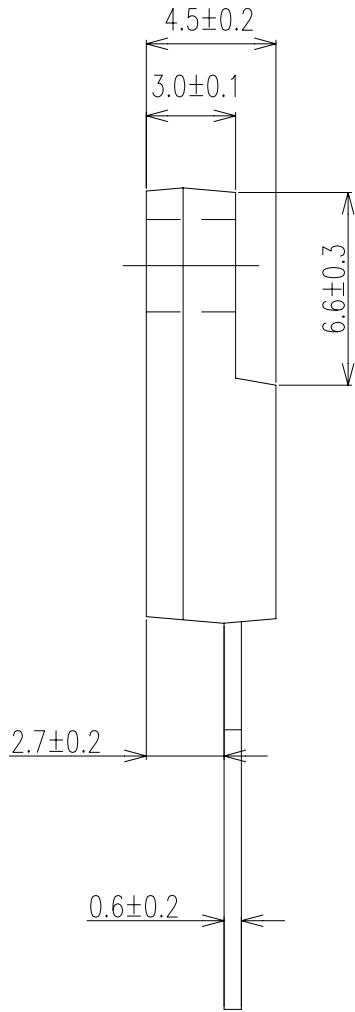
Approx Net Weight:1.75g

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

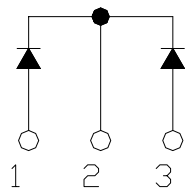
Electrical • Thermal Characteristics

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	

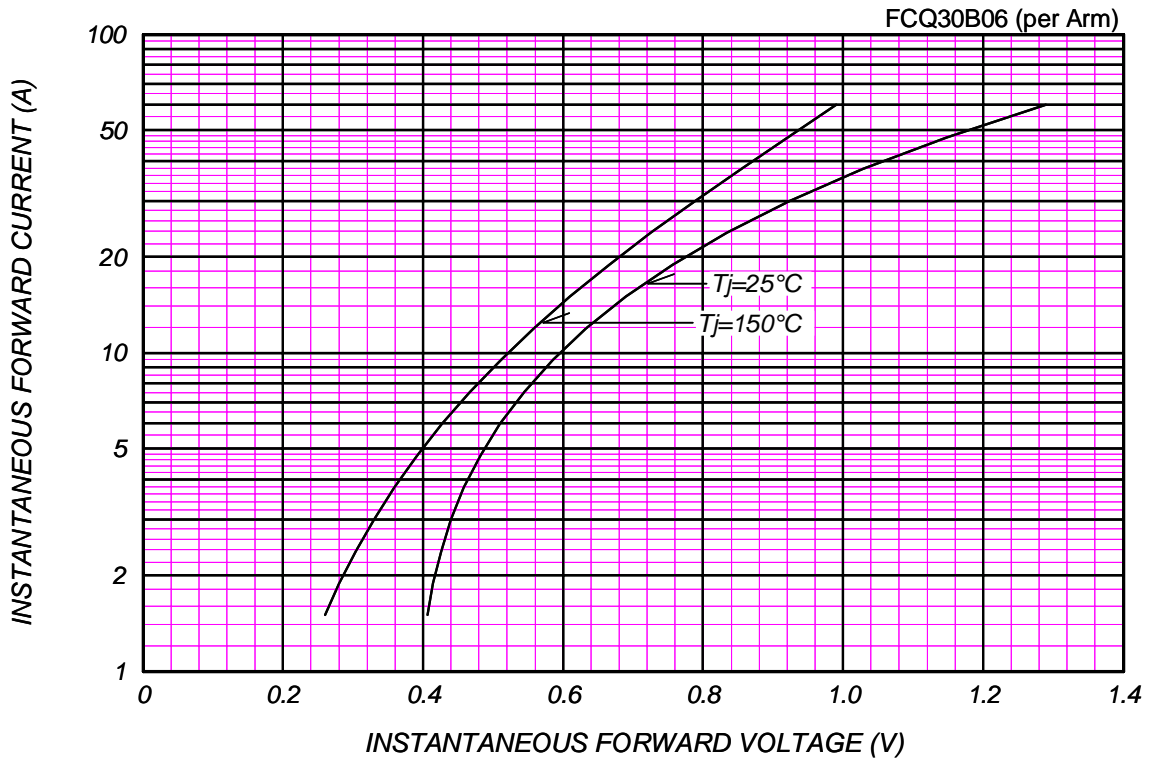
FCQ_B_ OUTLINE DRAWING (Dimensions in mm)



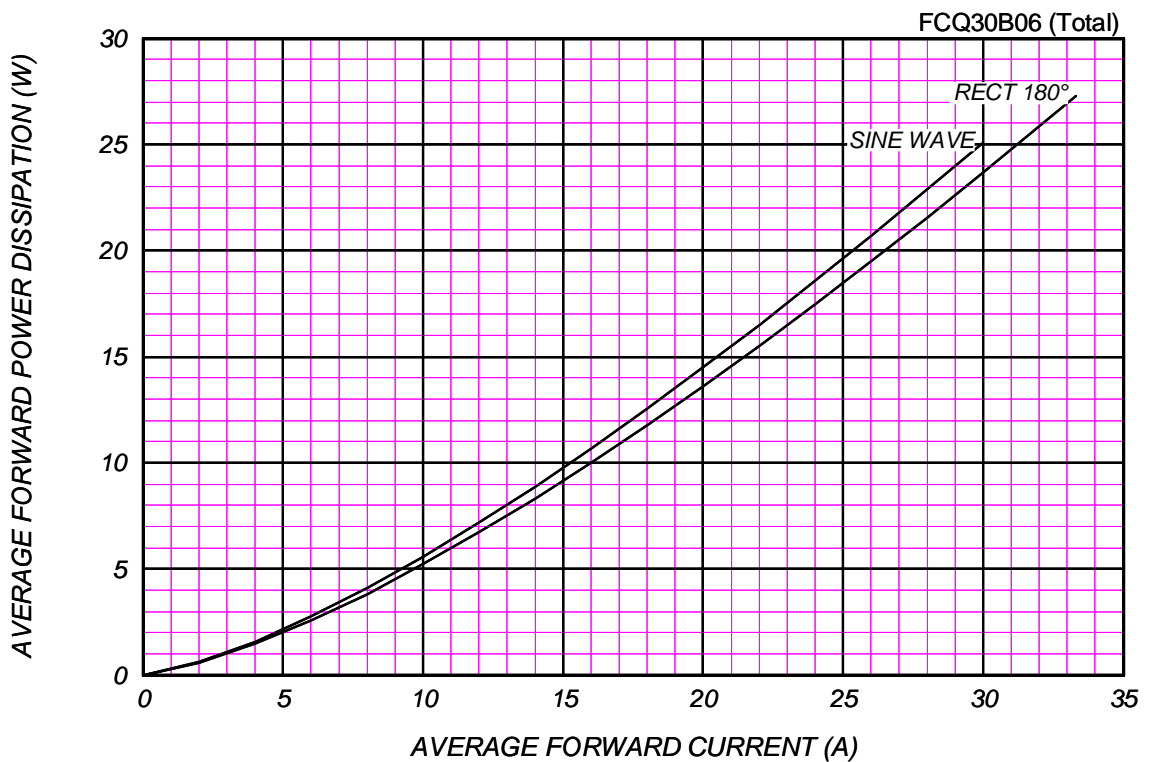
Center Tap



FORWARD CURRENT VS. VOLTAGE



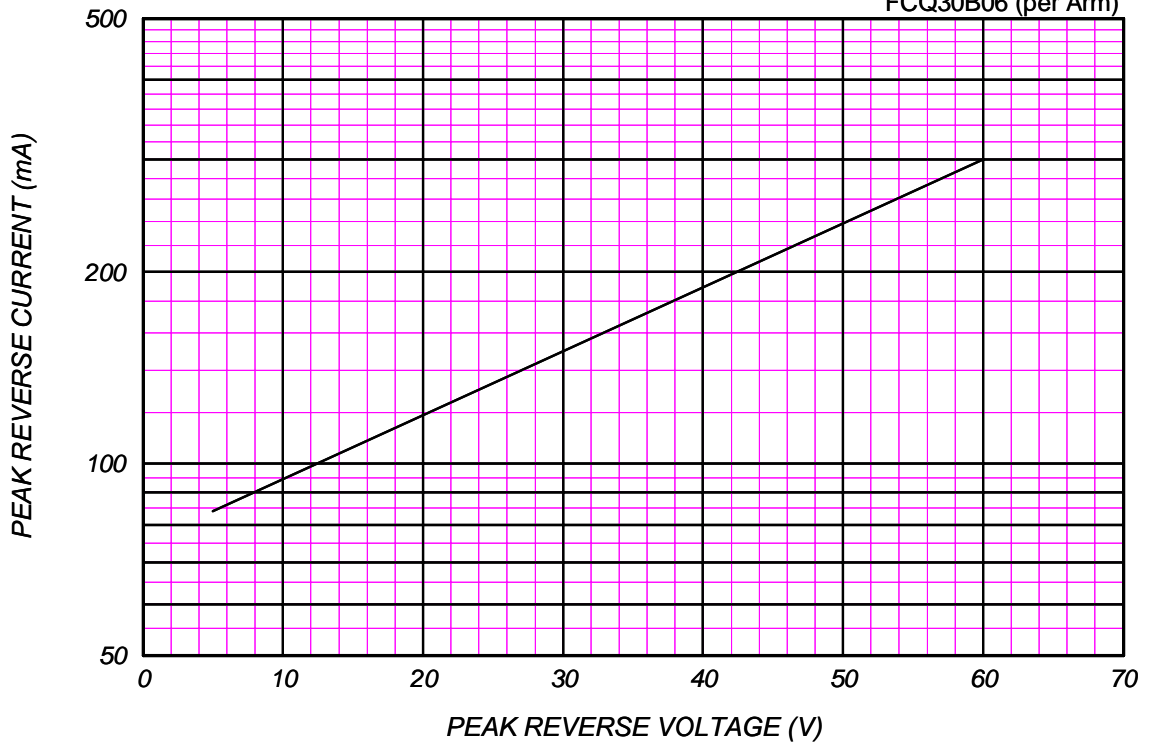
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

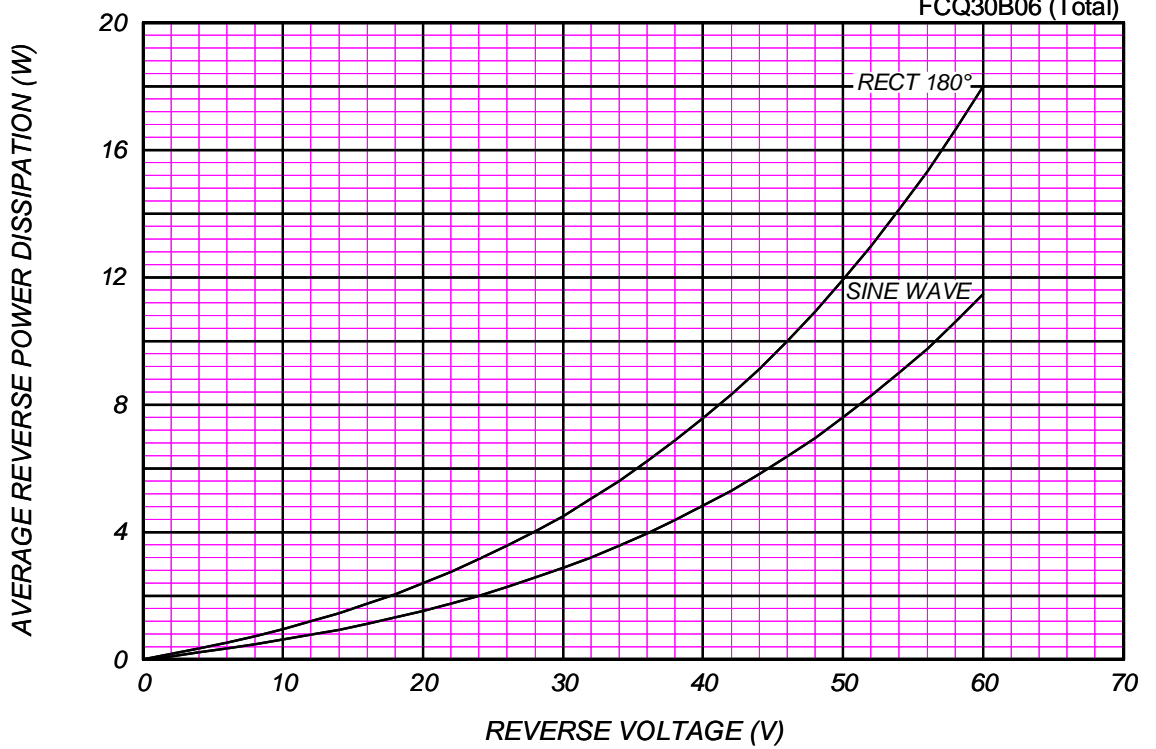
$T_j = 150\text{ }^\circ\text{C}$

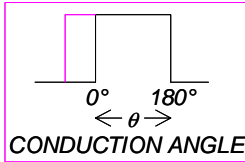
FCQ30B06 (per Arm)



AVERAGE REVERSE POWER DISSIPATION

FCQ30B06 (Total)

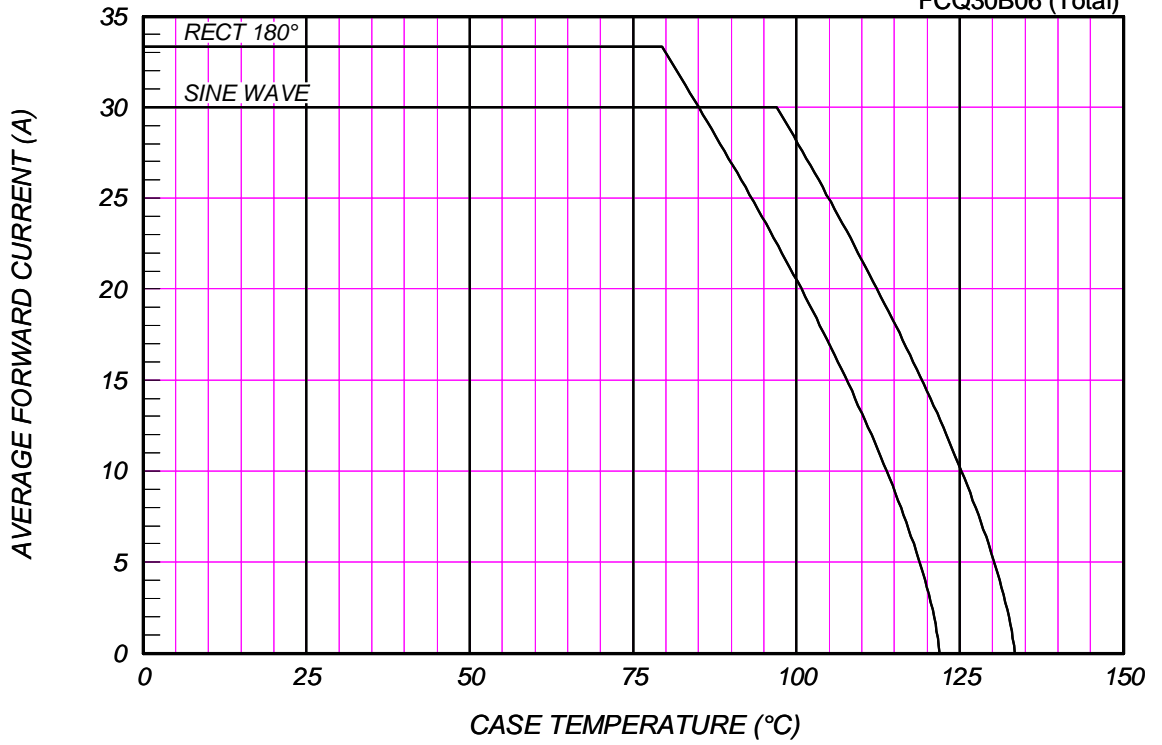




AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=60V$

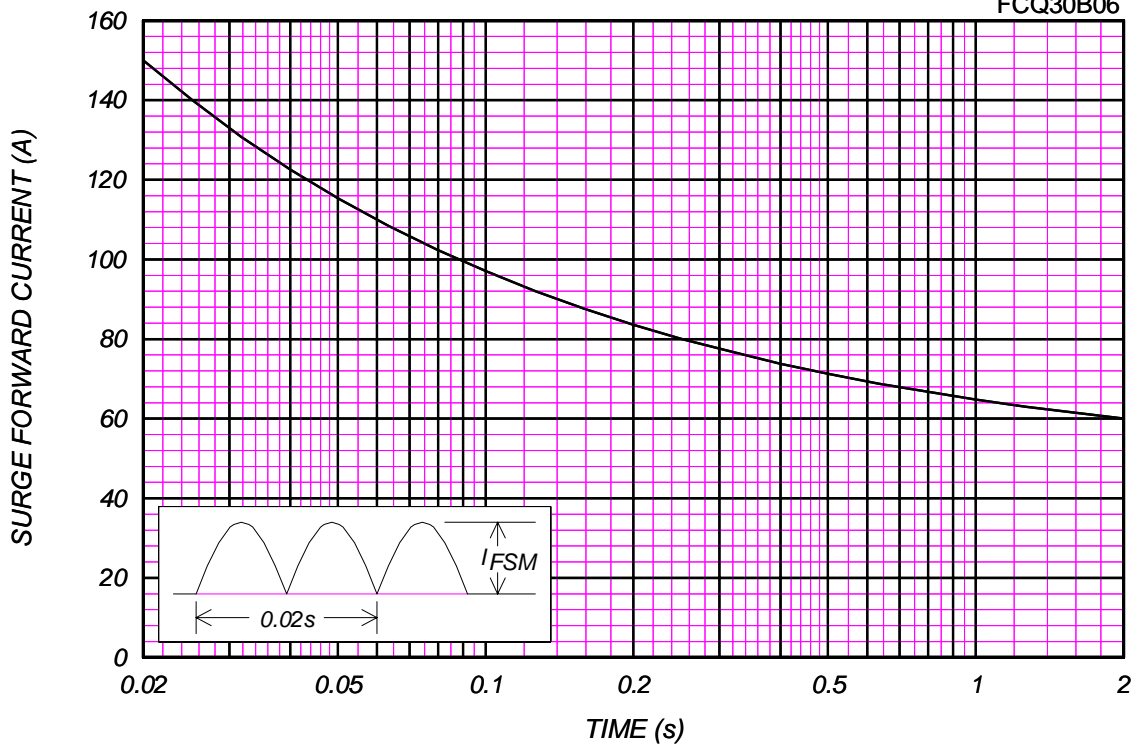
FCQ30B06 (Total)



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)

