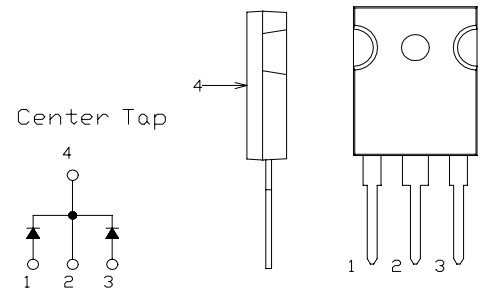


# SBD Type : KCQ30A06

OUTLINE DRAWING

## FEATURES

- \* Similar to TO-247AC(TO-3P)Case
- \* Dual Diodes Cathode Common
- \* Low Forward Voltage Drop
- \* Low Power Loss,High Efficiency
- \* High Surge Current Capability
- \* 30 Volts thru 60 Volts Types Available



## Maximum Ratings

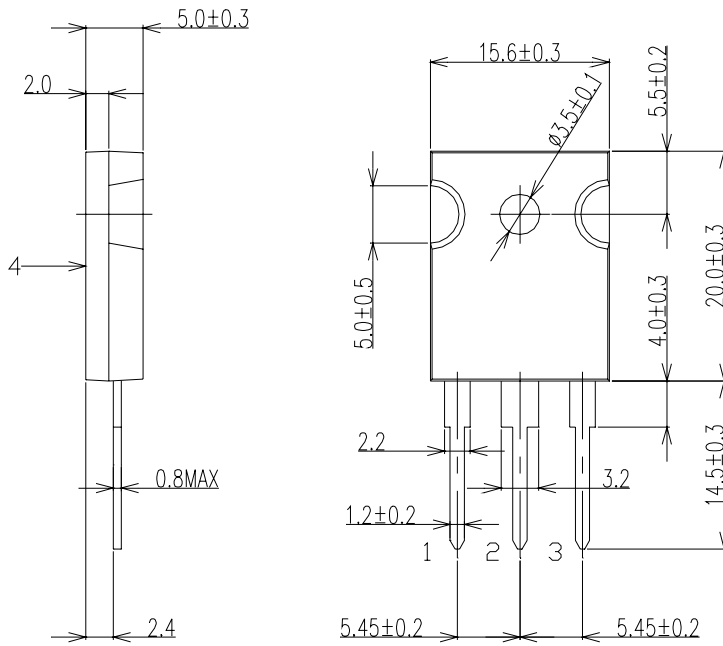
Approx Net Weight: 5.55g

Rating	Symbol	KCQ30A06		Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	60		V
Average Rectified Output Current	$I_O$	30	$T_c=102^{\circ}C$ 50 Hz Full Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	33.3		A
Surge Forward Current	$I_{FSM}$	200	50Hz Full Sine Wave ,1cycle Non-repetitive	A
Operating JunctionTemperature Range	$T_{jw}$	-40 to +150		$^{\circ}C$
Storage Temperature Range	$T_{stg}$	-40 to +150		$^{\circ}C$
Mounting torque	$F_{tor}$	recommended torque = 0.5		N•m

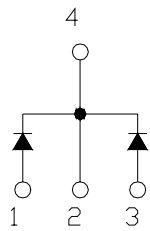
## Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j= 25^{\circ}C, V_{RM}= V_{RRM}$ per Arm	-	-	15	mA
Peak Forward Voltage	$V_{FM}$	$T_j=25^{\circ}C, I_{FM}=15A$ per Arm	-	-	0.65	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	1.3	$^{\circ}C/W$

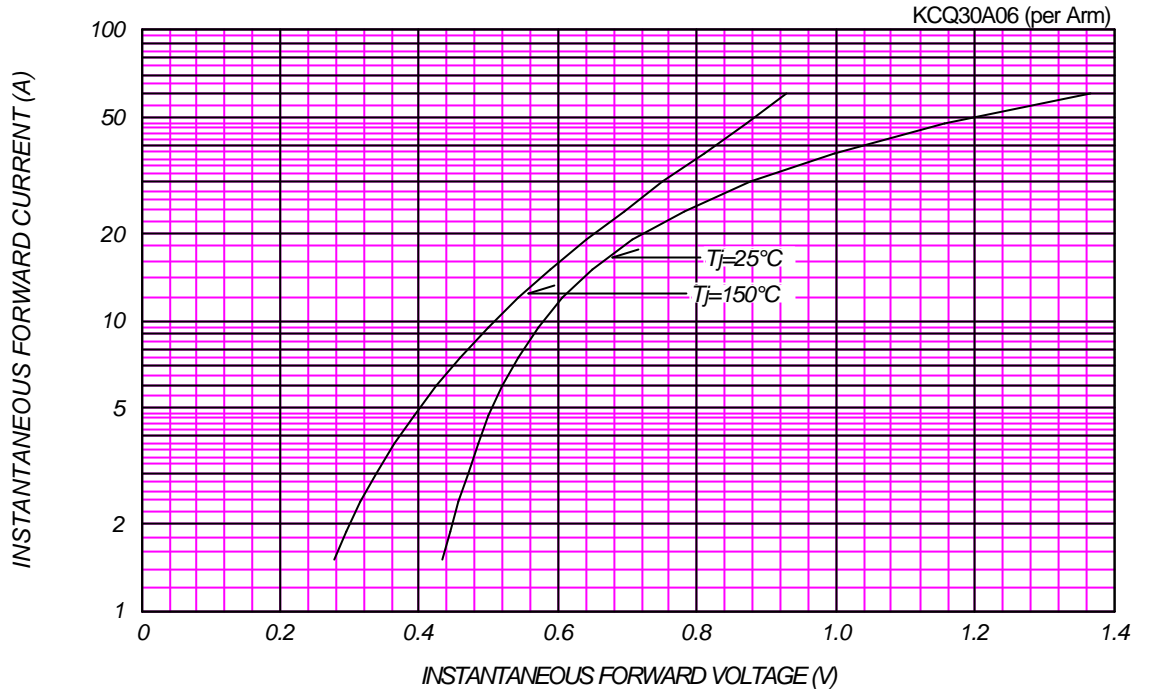
KCQ30A06 OUTLINE DRAWING (Dimensions in mm)



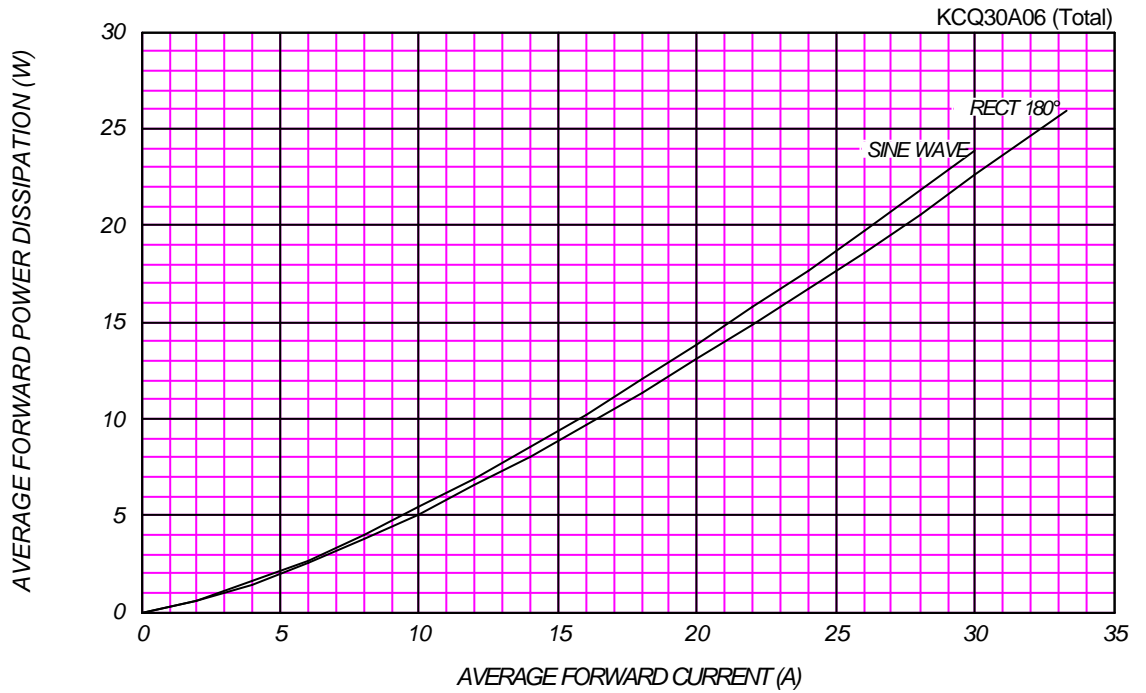
Center Tap



### FORWARD CURRENT VS. VOLTAGE



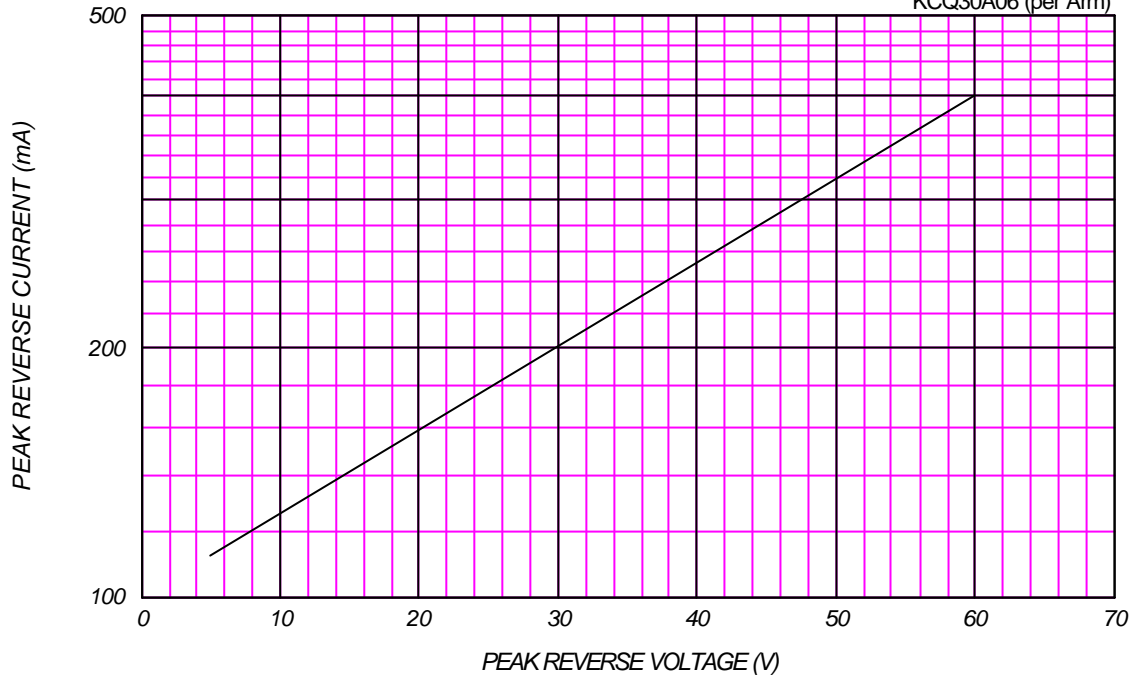
### AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

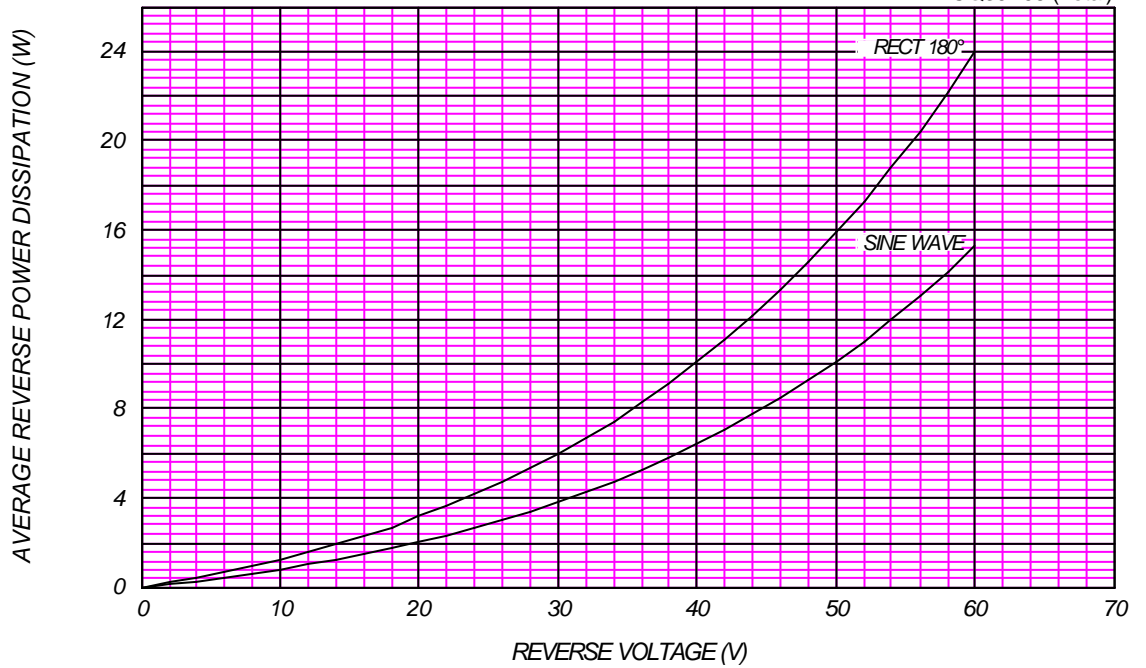
$T_j = 150\text{ }^\circ\text{C}$

KCQ30A06 (per Arm)



AVERAGE REVERSE POWER DISSIPATION

KCQ30A06 (Total)

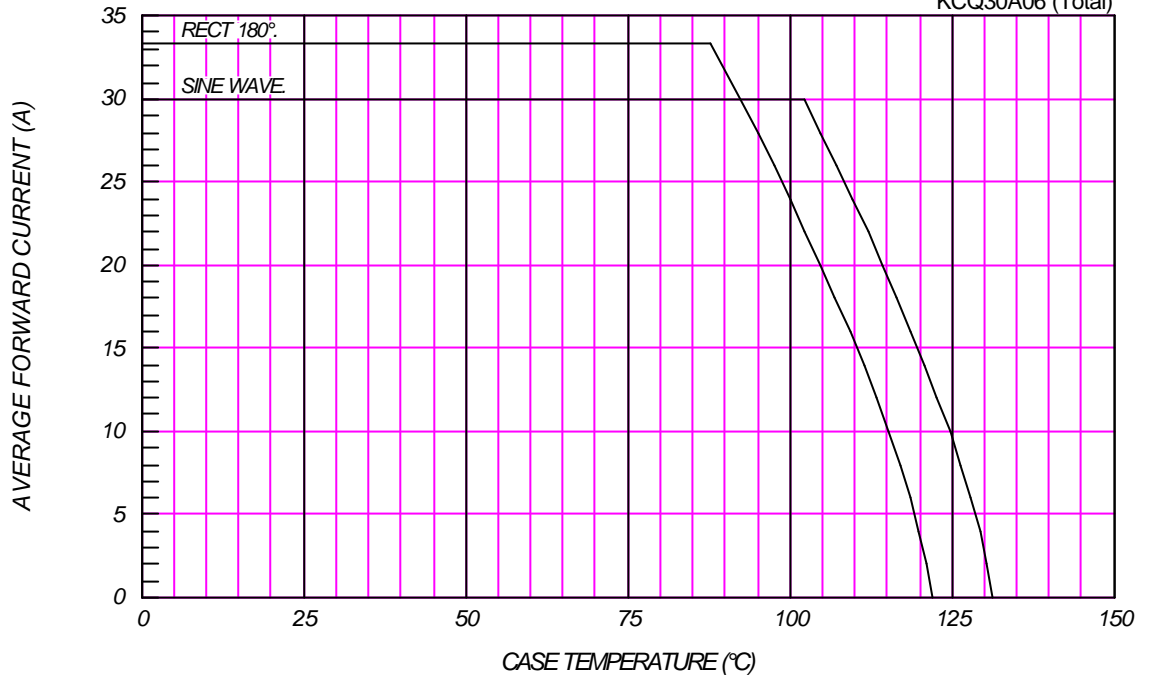




### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=60V$

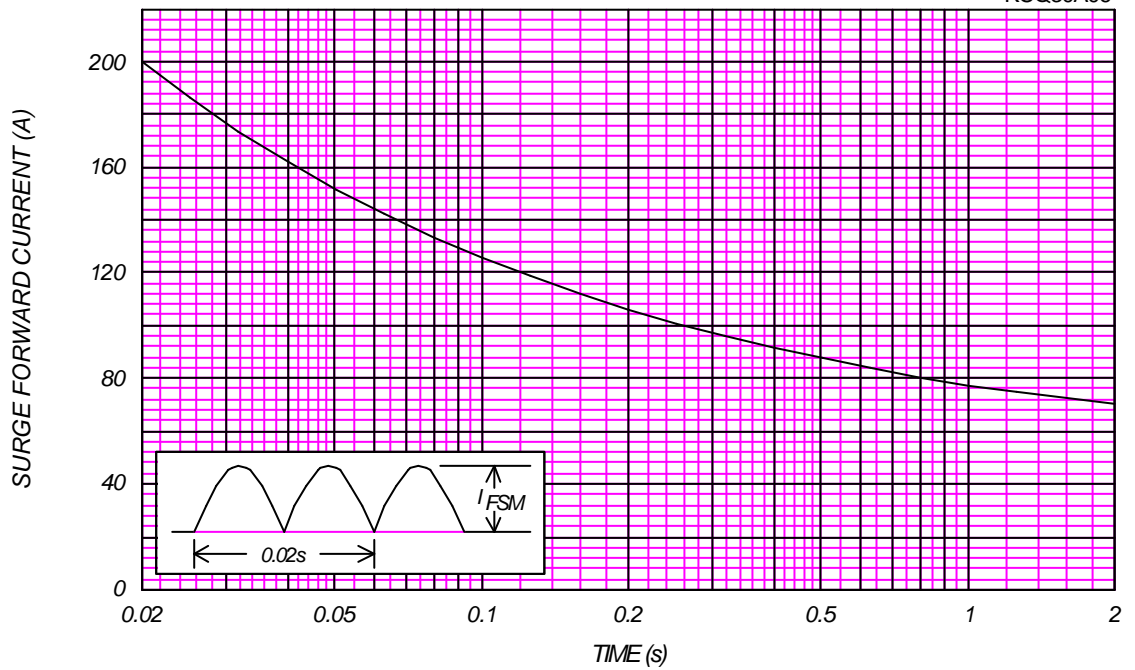
KCQ30A06 (Total)



### SURGE CURRENT RATINGS

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

KCQ30A06



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

KCQ30A06 (per Arm)

