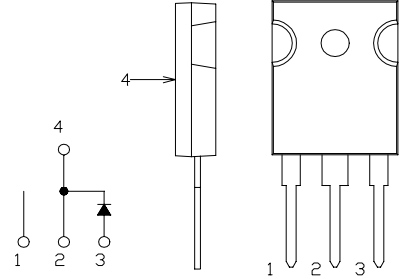


# SBD Type : KSQ30A06B

OULINE DRAWING

### FEATURES

- \* Similar to TO-247AC(TO-3P)Case
- \* Low Forward Voltage Drop
- \* Low Power Loss,High Efficiency
- \* High Surge Current Capability
- \* 40 Volts thru 60 Volts Types Available



### Maximum Ratings

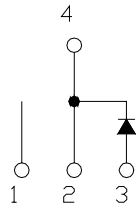
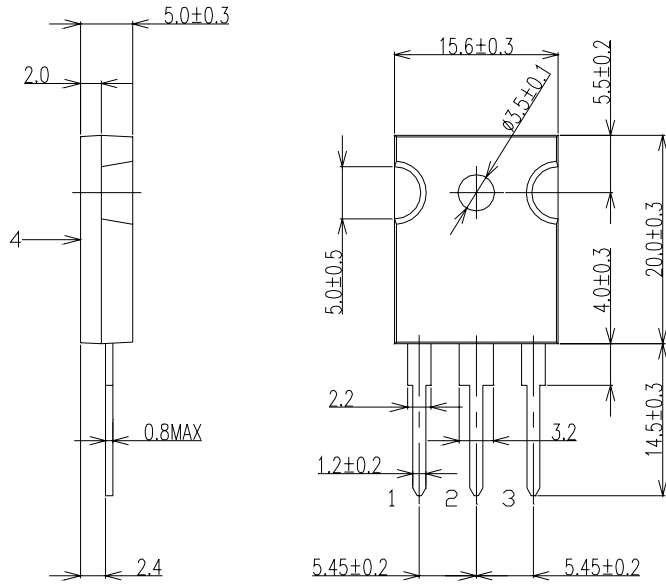
Approx Net Weight: 5.55g

Rating	Symbol	KSQ30A06B			Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	60			V
Average Rectified Output Current	$I_O$	30	$T_c=98^{\circ}C$	50 Hz half Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	47.1			A
Surge Forward Current	$I_{FSM}$	400	50Hz Half 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

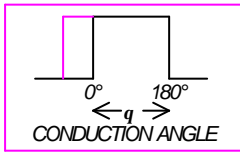
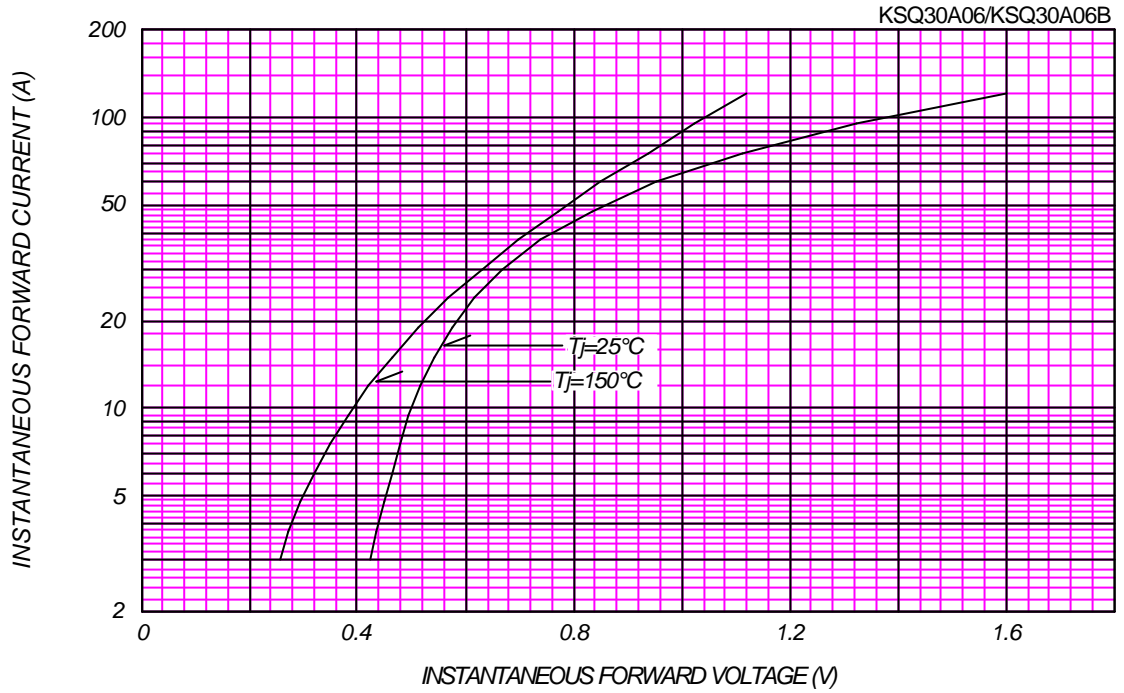
### Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j= 25^{\circ}C, V_{RM}= V_{RRM}$	-	-	25	mA
Peak Forward Voltage	$V_{FM}$	$T_j= 25^{\circ}C, I_{FM}= 30 A$	-	-	0.67	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	1.3	$^{\circ}C/W$

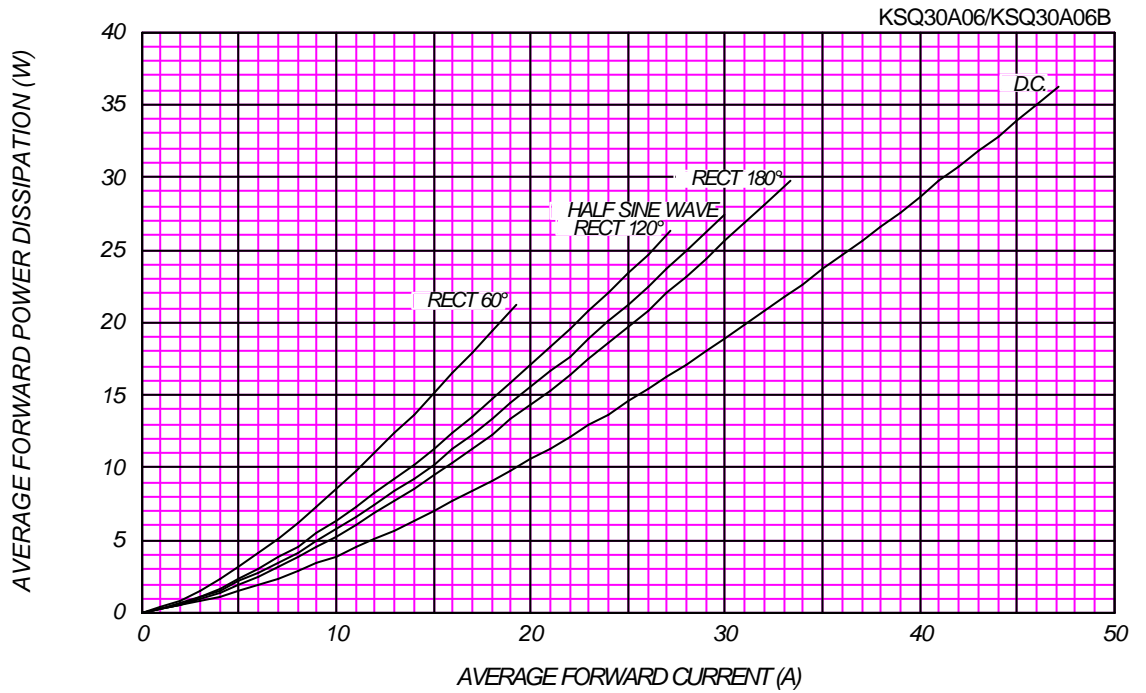
KSQ30A06B OUTLINE DRAWING (Dimension in mm)



FORWARD CURRENT VS. VOLTAGE



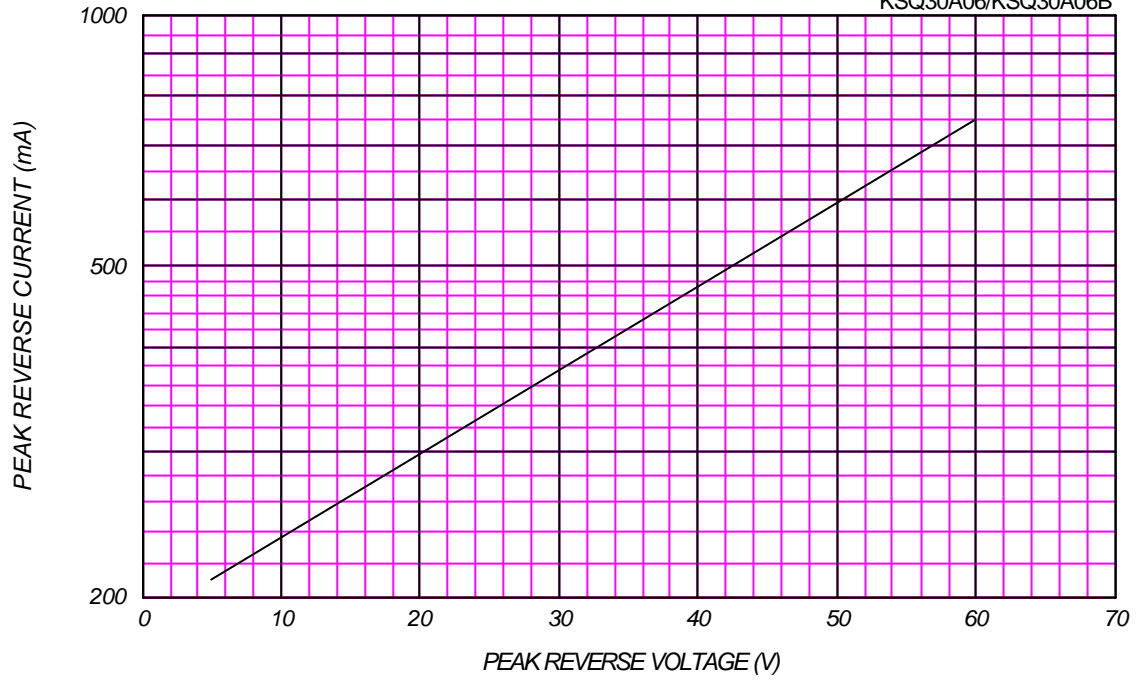
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

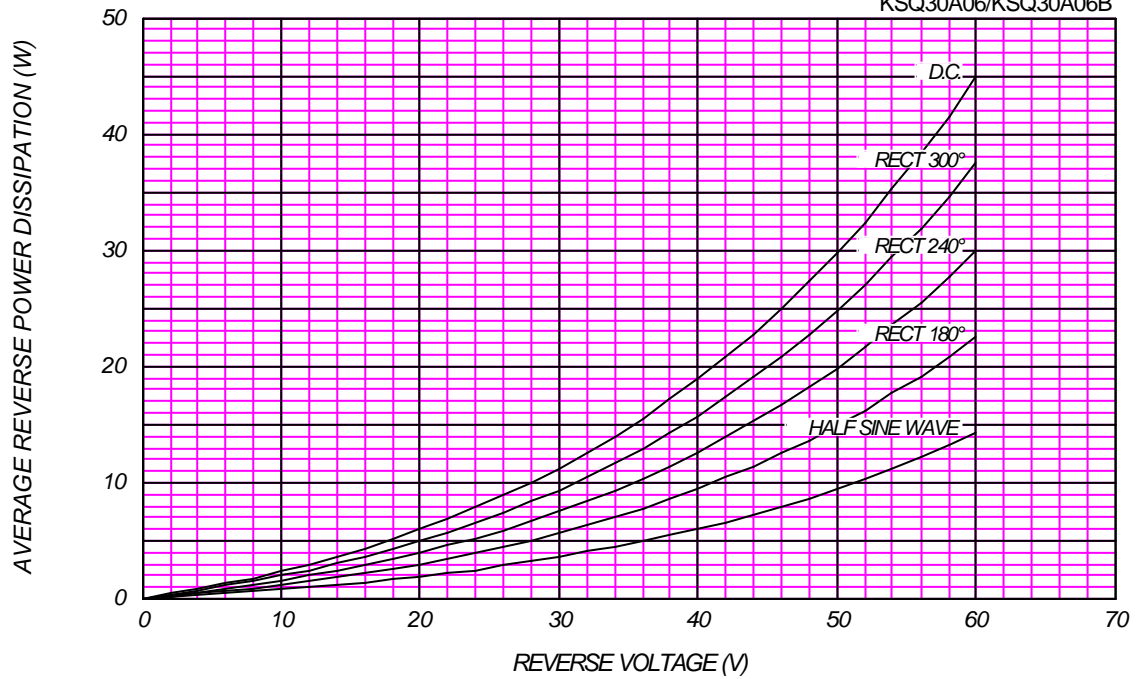
$T_j = 150\text{ }^\circ\text{C}$

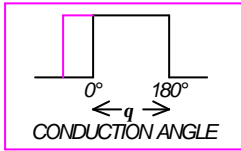
KSQ30A06/KSQ30A06B



AVERAGE REVERSE POWER DISSIPATION

KSQ30A06/KSQ30A06B

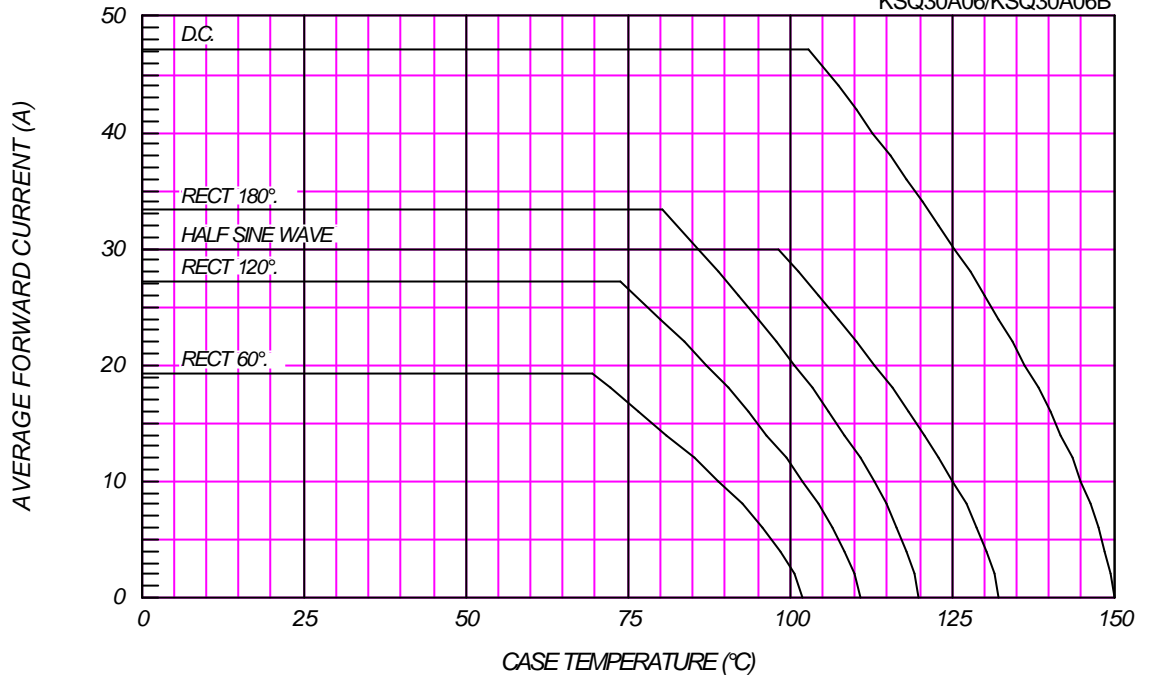




### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=60V$

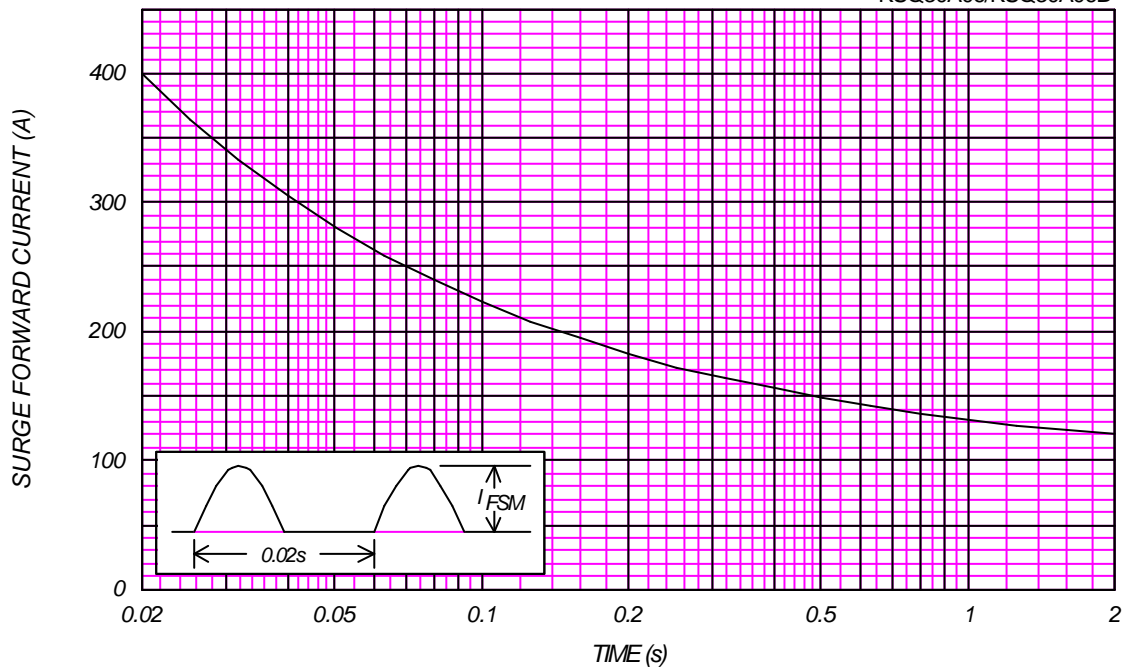
KSQ30A06/KSQ30A06B



### SURGE CURRENT RATINGS

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

KSQ30A06/KSQ30A06B



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

KSQ30A06/KSQ30A06B

