

# SBD Type : KCH30A18

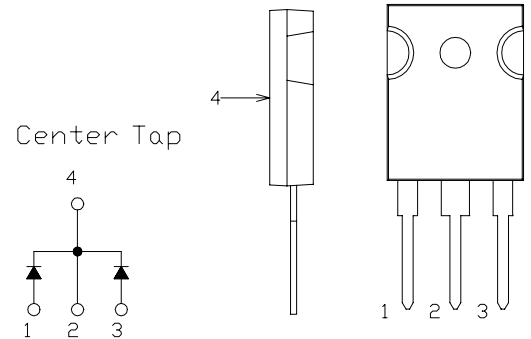
OUTLINE DRAWING

**30A 180V Tj:150°C**
**FEATURES**

- \*Similar to TO-247AC Case
- \*Dual Diodes – Cathode Common
- \*High Voltage Low Leakage Current
- \*Low Forward Voltage Drop
- \*Low Power Loss,High Efficiency
- \*Tj=150 °C operation

**APPLICATIONS**

- \*For Replacement of 200V FRD  
(Low Noise ,High Efficiency Power Supply)


**Maximum Ratings**

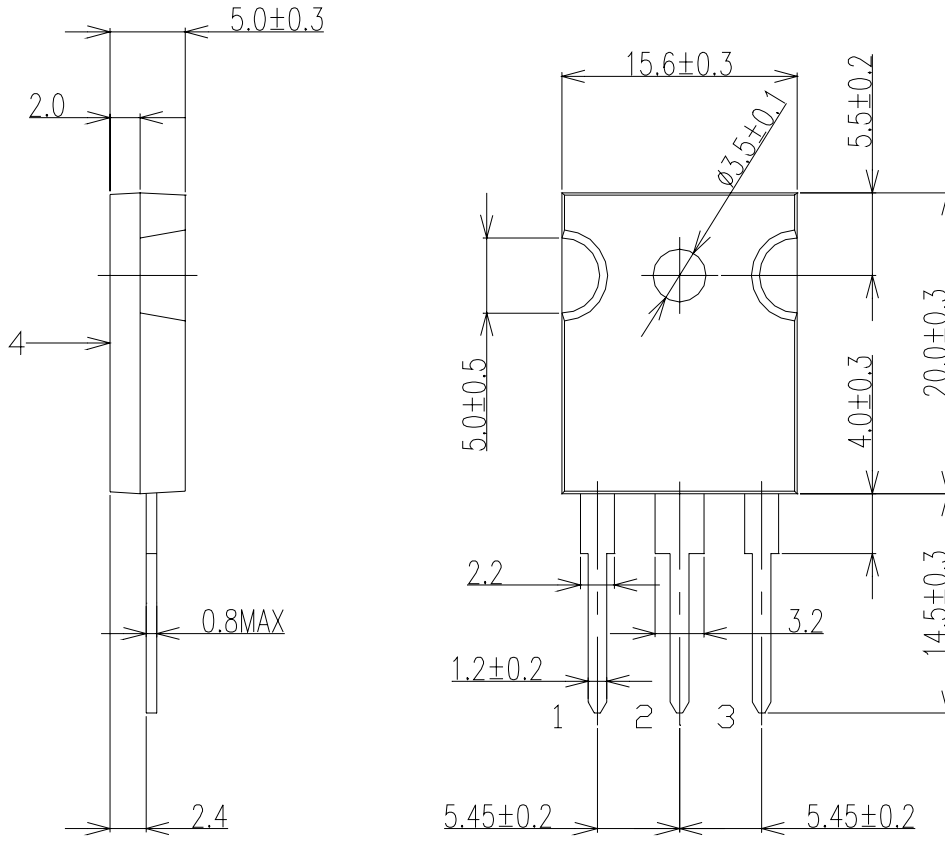
Approx Net Weight: 5.55g

Rating	Symbol	KCH30A18		Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	180		V
Average Rectified Output Current	$I_o$	30	$T_c=107^\circ\text{C}$ 50 Hz Full Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	33.3		A
Surge Forward Current	$I_{FSM}$	150	50Hz Full Sine Wave ,1cycle Non-repetitive	A
Operating JunctionTemperature Range	$T_{jw}$	-40 to +150		°C
Storage Temperature Range	$T_{stg}$	-40 to +150		°C
Mounting torque	$F_{tor}$	recommended torque = 0.5		N•m

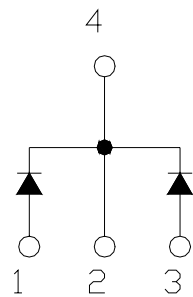
**Electrical • Thermal Characteristics**

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j= 25^\circ\text{C}$ , $V_{RM}= V_{RRM}$ per Arm	-	-	300	$\mu\text{A}$
Peak Forward Voltage	$V_{FM}$	$T_j= 25^\circ\text{C}$ , $I_{FM}= 15\text{ A}$ per Arm	-	-	0.92	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	1.3	°C/W

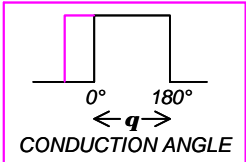
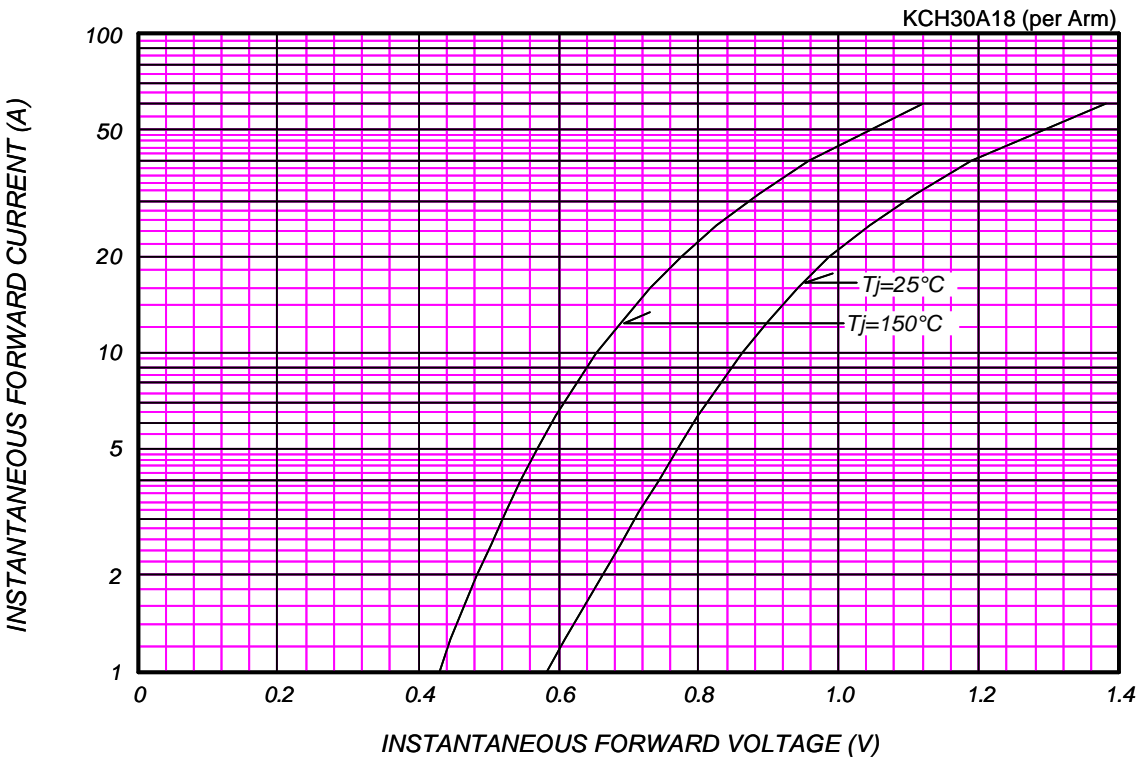
KCH<sub>xx</sub>A OUTLINE DRAWING (Dimensions in mm)



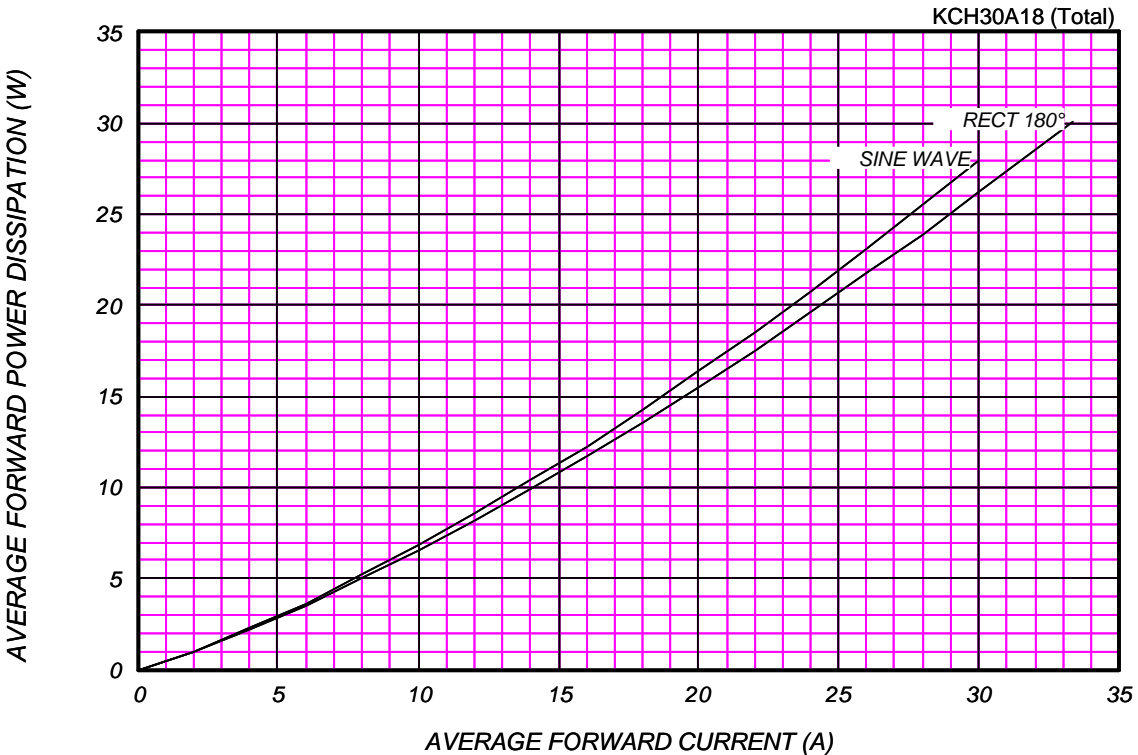
Center Tap



FORWARD CURRENT VS. VOLTAGE

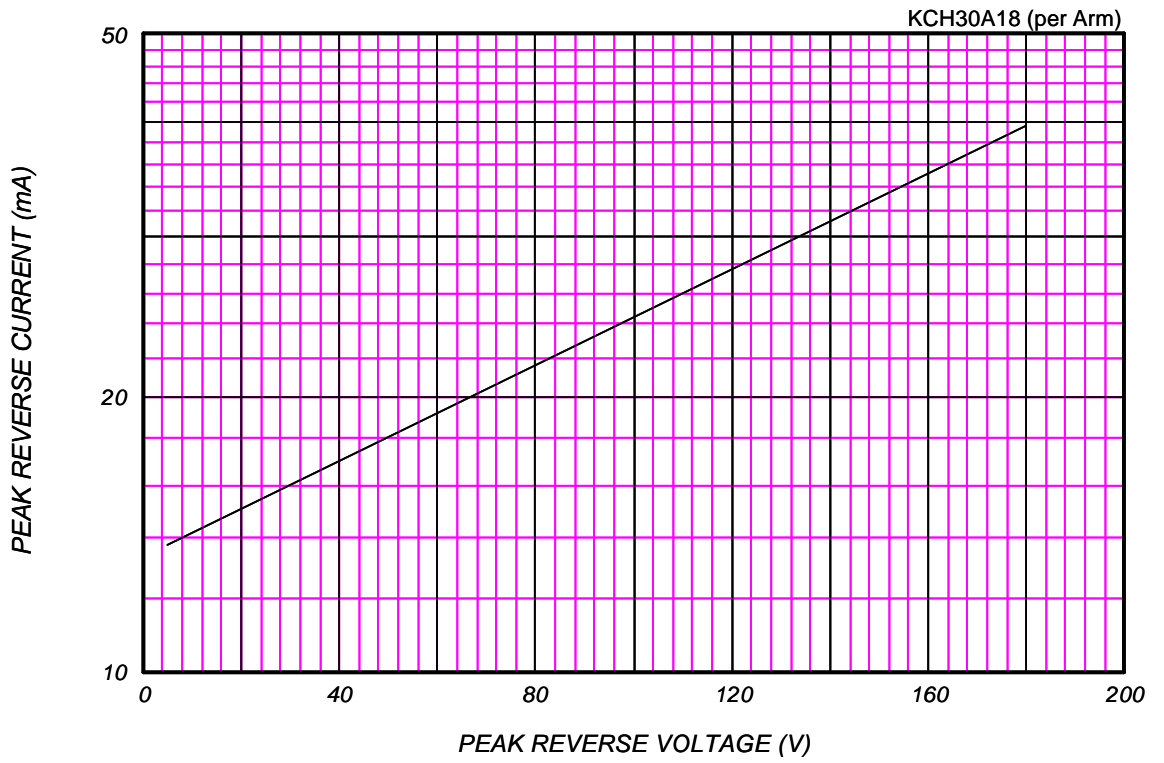


AVERAGE FORWARD POWER DISSIPATION

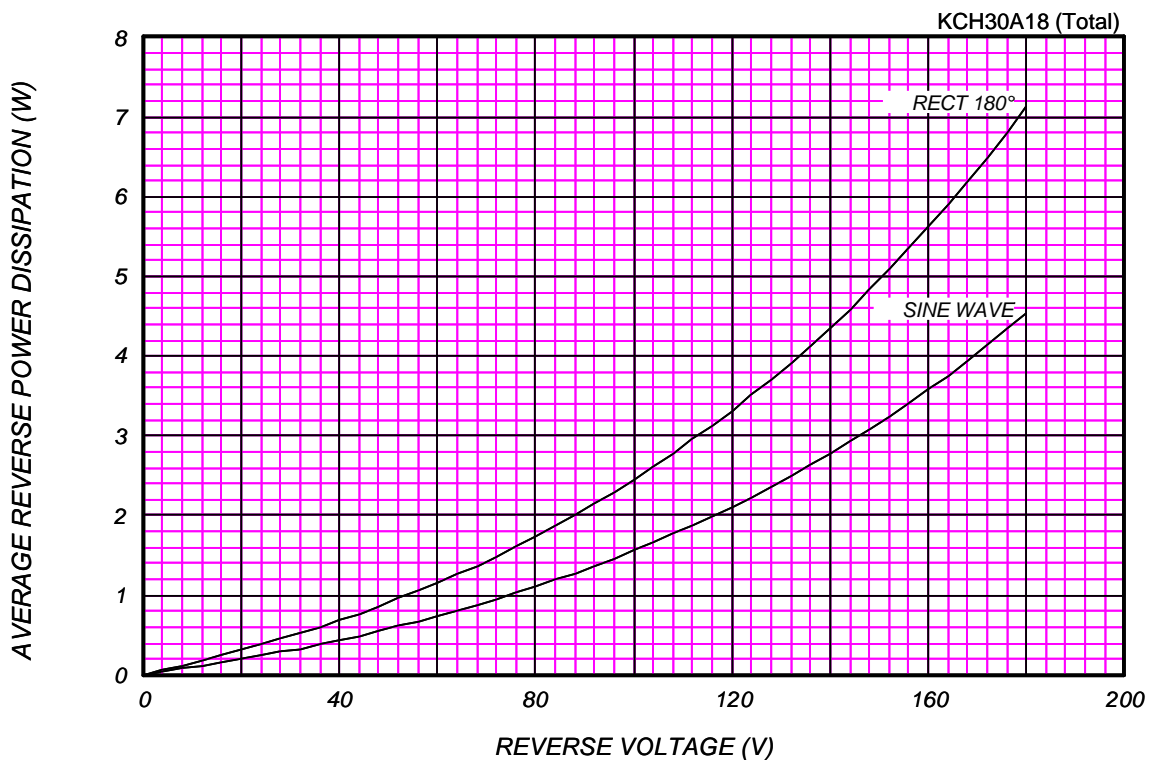


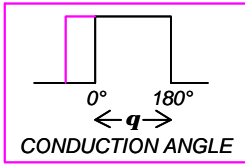
### PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

T<sub>j</sub> = 150 °C



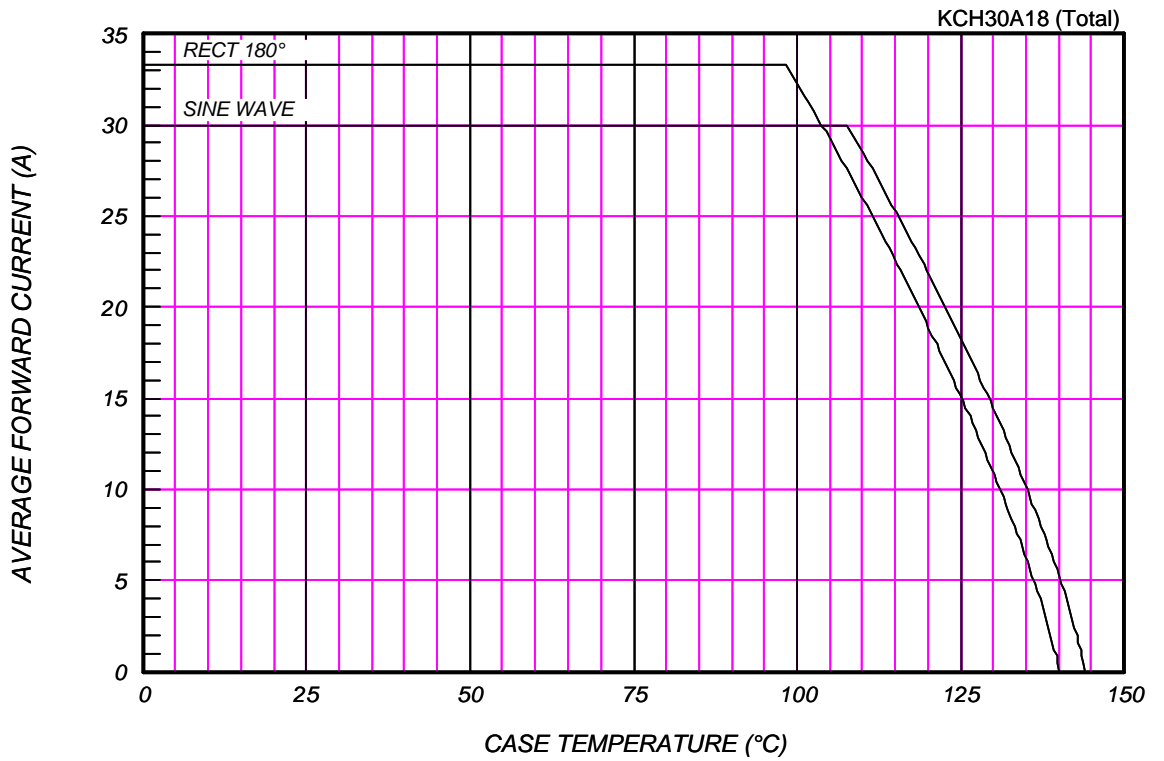
### AVERAGE REVERSE POWER DISSIPATION





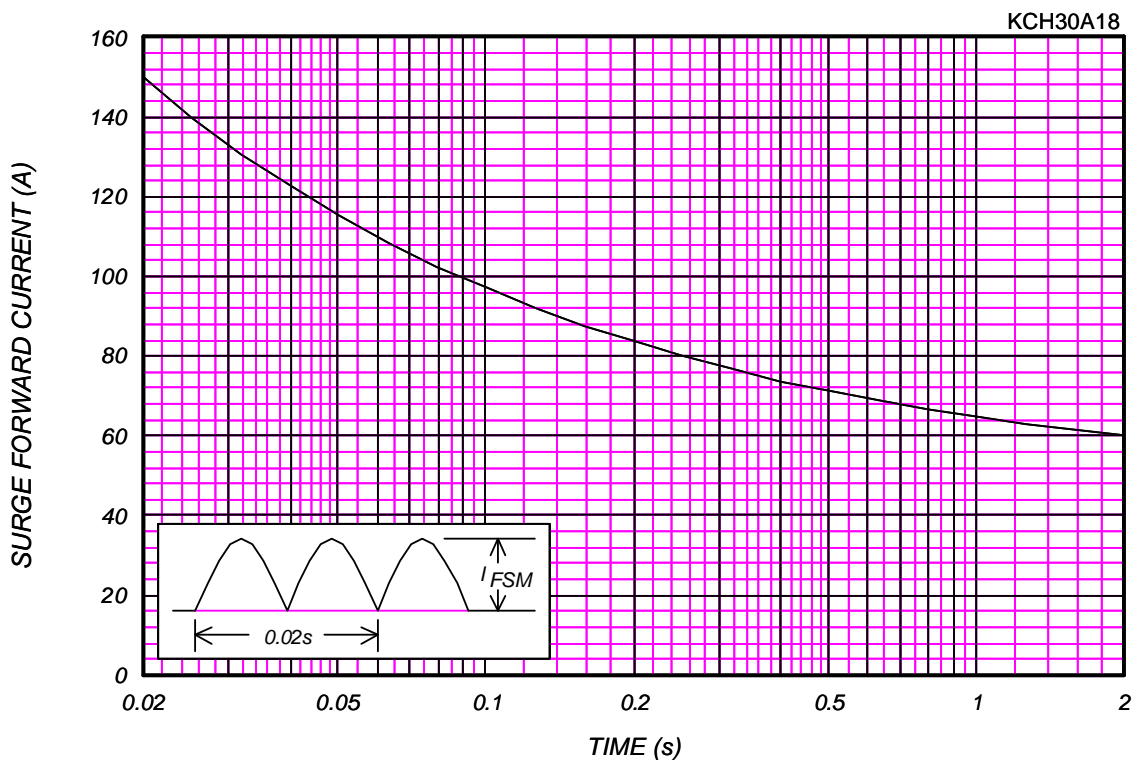
### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM} = 180V$



### SURGE CURRENT RATINGS

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



### JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

KCH30A18 (per Arm)

