

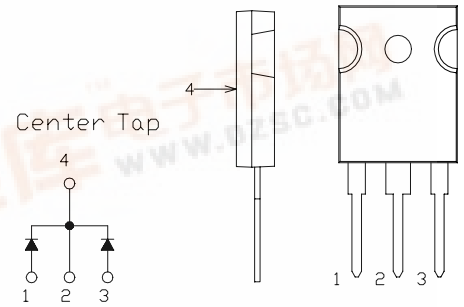


# SBD Type : KCH20A10

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
- \* Tj=150°C operation



### Maximum Ratings

Approx Net Weight: 5.55g

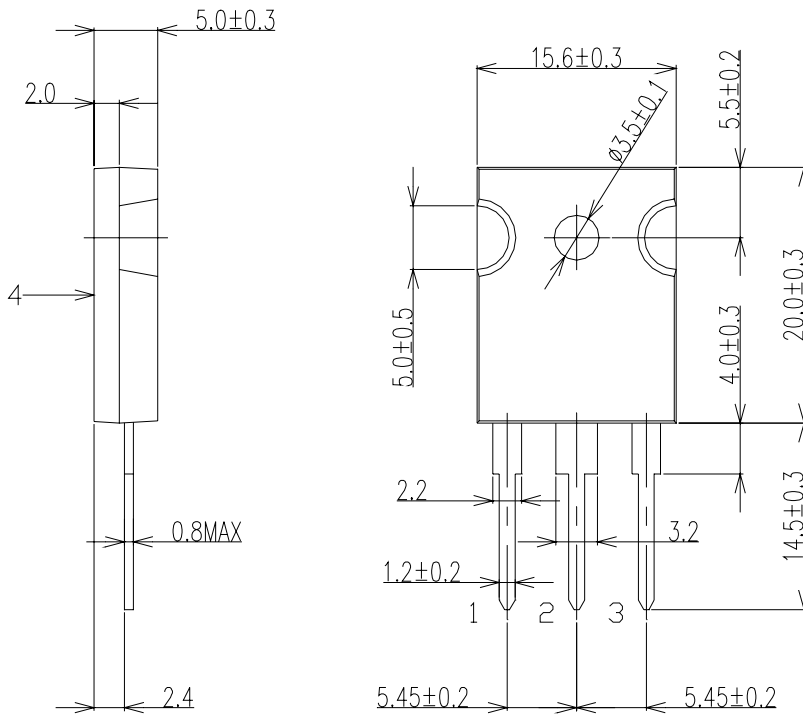
Rating	Symbol	KCH20A10		Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	100		V
Average Rectified Output Current	$I_O$	20	$T_c=120^\circ\text{C}$ 50 Hz Full Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	22.2		A
Surge Forward Current	$I_{FSM}$	180	50Hz Full Sine Wave ,1cycle Non-repetitive	A
Operating JunctionTemperature Range	$T_{jw}$	-40 to +150		$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-40 to +150		$^\circ\text{C}$
Mounting torque	$F_{tor}$	recommended torque = 0.5		$\text{N}\cdot\text{m}$

### Electrical • Thermal Characteristics

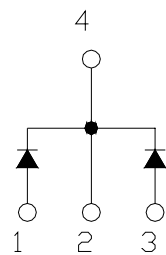
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j=25^\circ\text{C}$ , $V_{RM}=V_{RRM}$ per Arm	-	-	1	mA
Peak Forward Voltage	$V_{FM}$	$T_j=25^\circ\text{C}$ , $I_{FM}=10\text{A}$ per Arm	-	-	0.88	V
Thermal Resistance Junction to Case	$R_{th(j-c)}$	Junction to Case	-	-	1.5	$^\circ\text{C}/\text{W}$



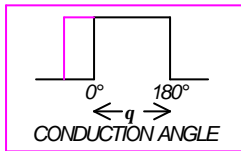
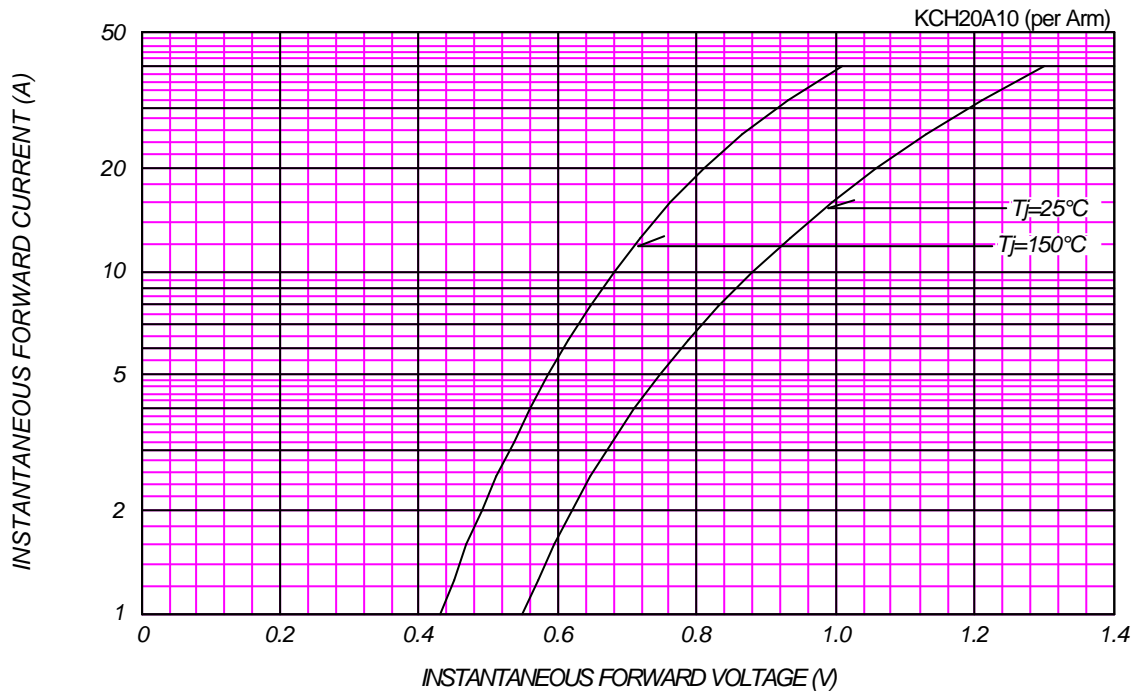
KCH20A10 OUTLINE DRAWING (Dimensions in mm)



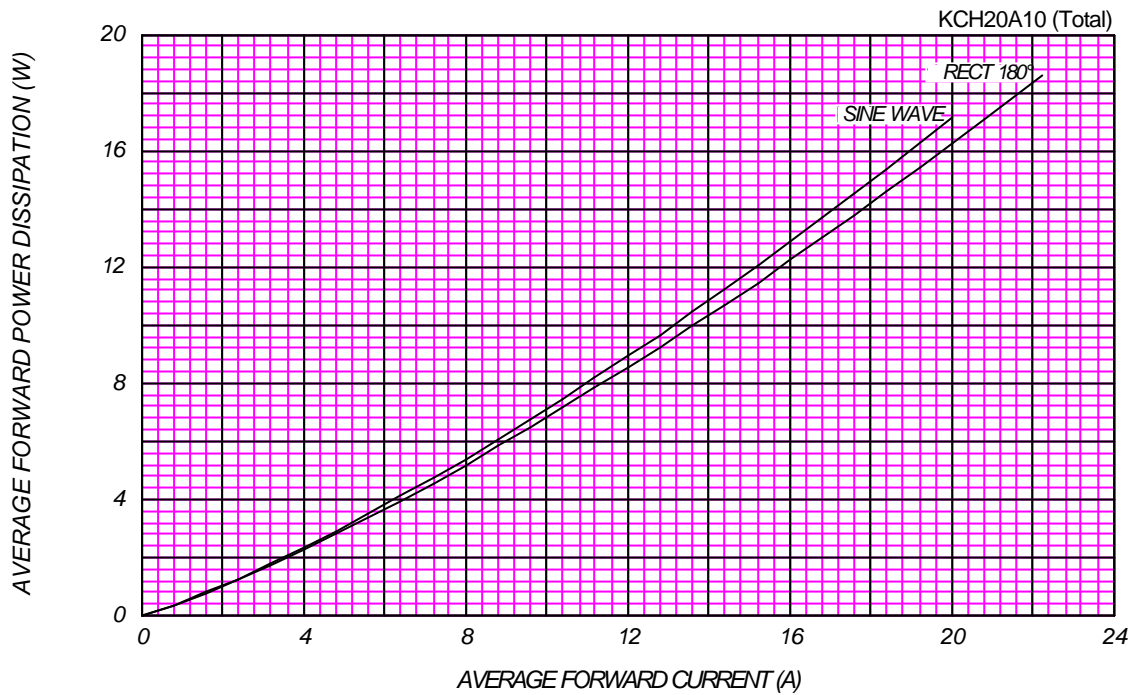
Center Tap



FORWARD CURRENT VS. VOLTAGE

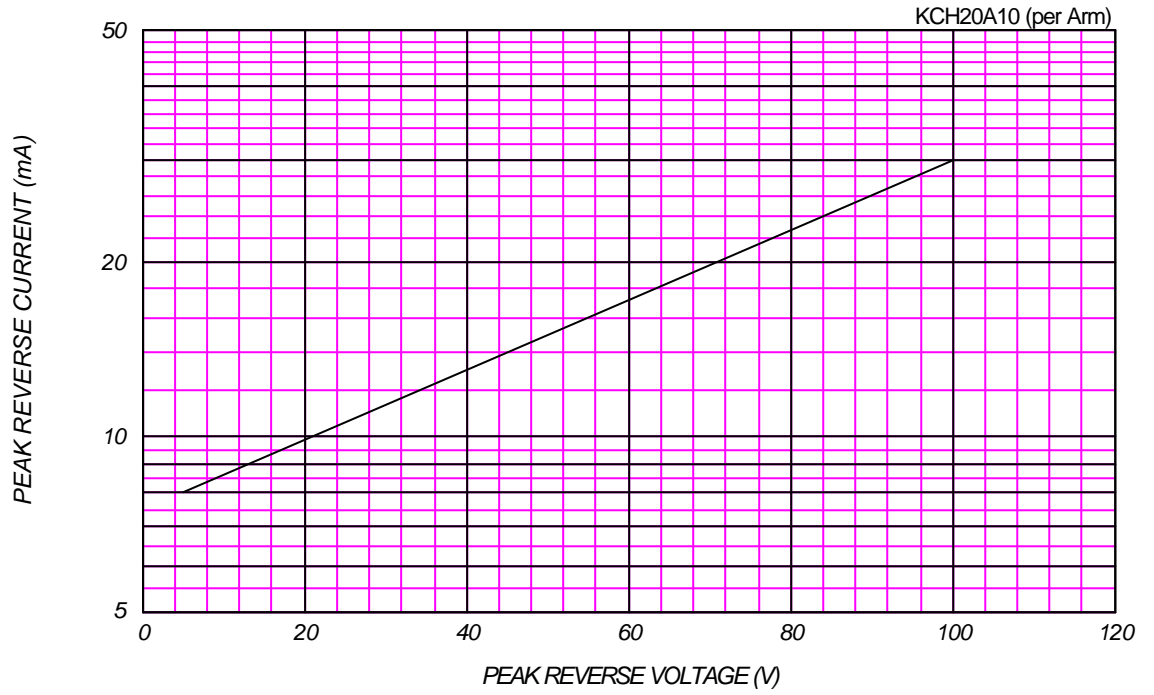


AVERAGE FORWARD POWER DISSIPATION

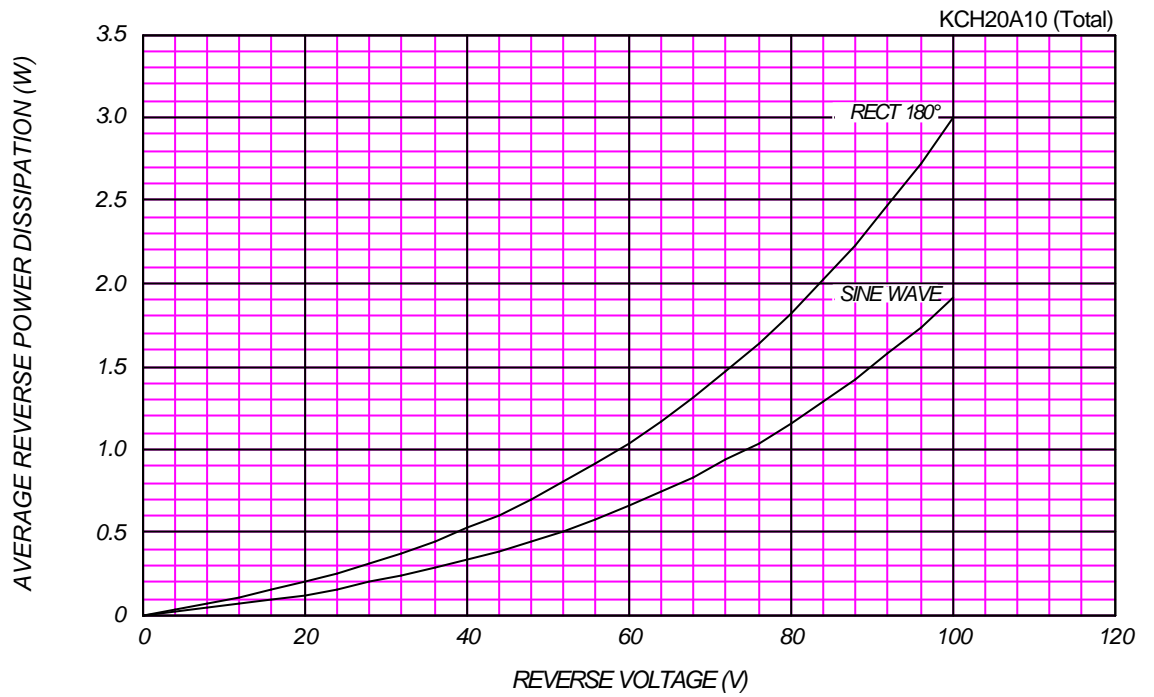


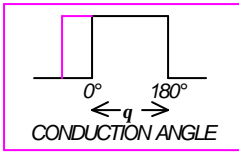
PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

T<sub>j</sub> = 150 °C



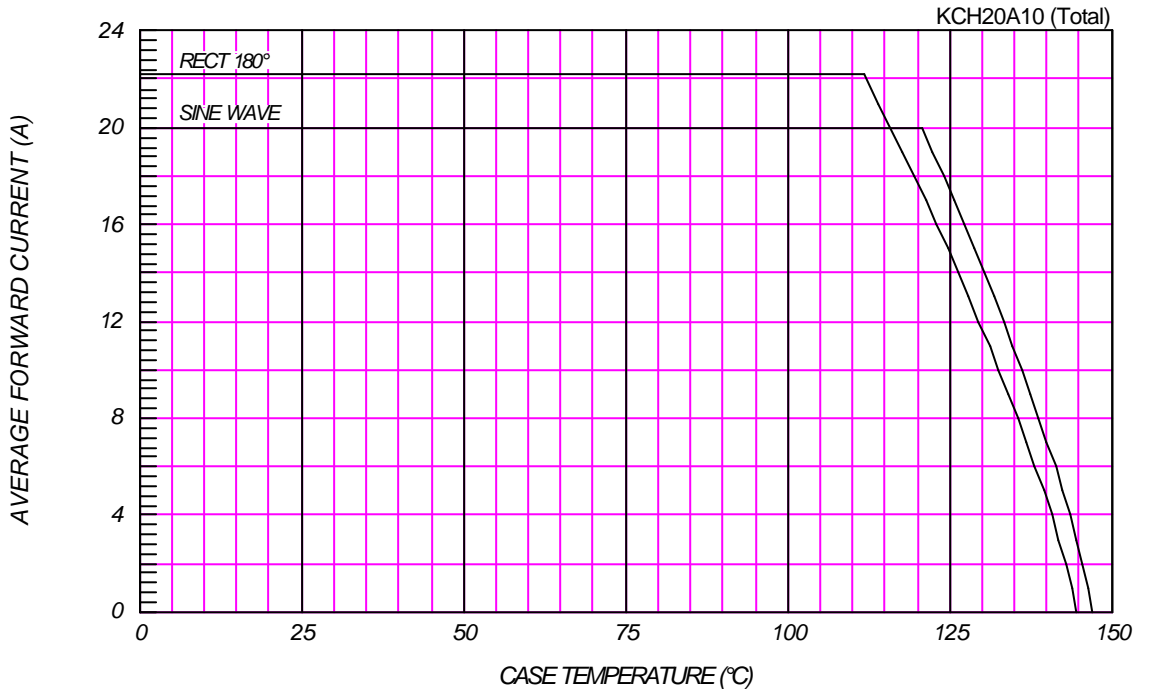
AVERAGE REVERSE POWER DISSIPATION





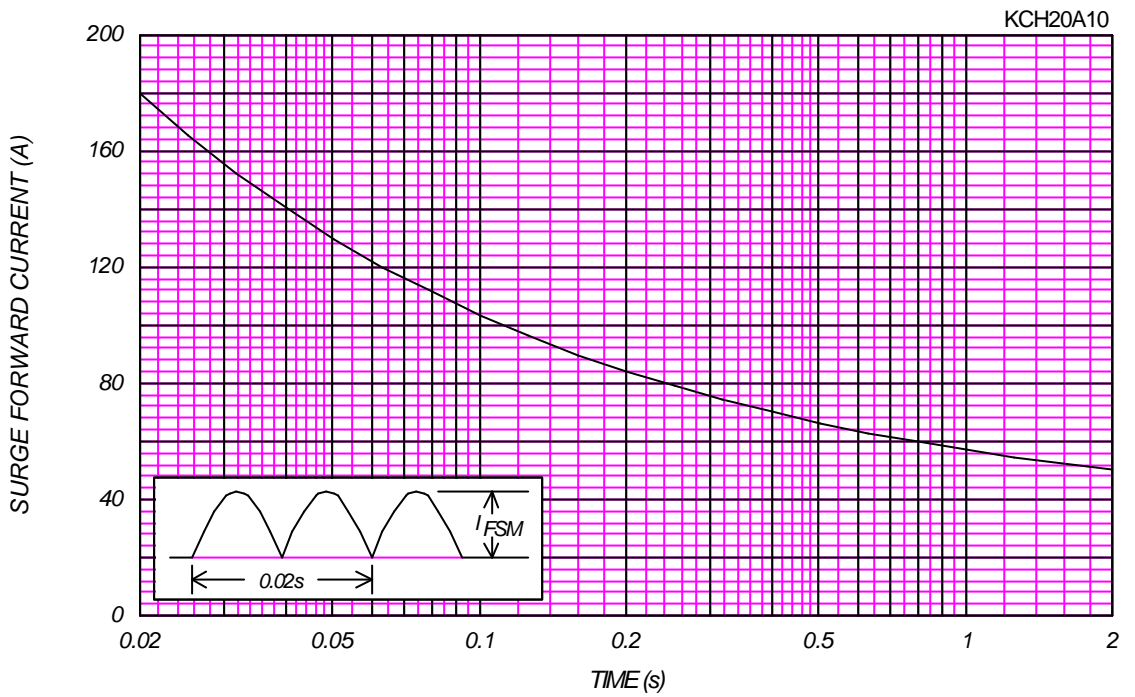
### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=100V$



### SURGE CURRENT RATINGS

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



*JUNCTION CAPACITANCE VS. REVERSE VOLTAGE*

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

KCH20A10 (per Arm)

