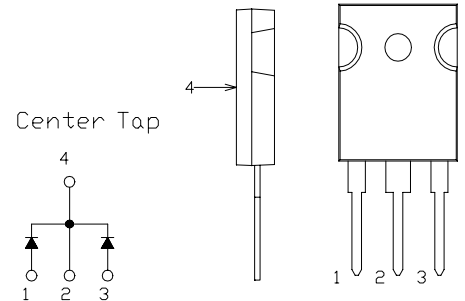


SBD Type : KCQ20A03L

OUTLINE DRAWING

FEATURES

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



Maximum Ratings

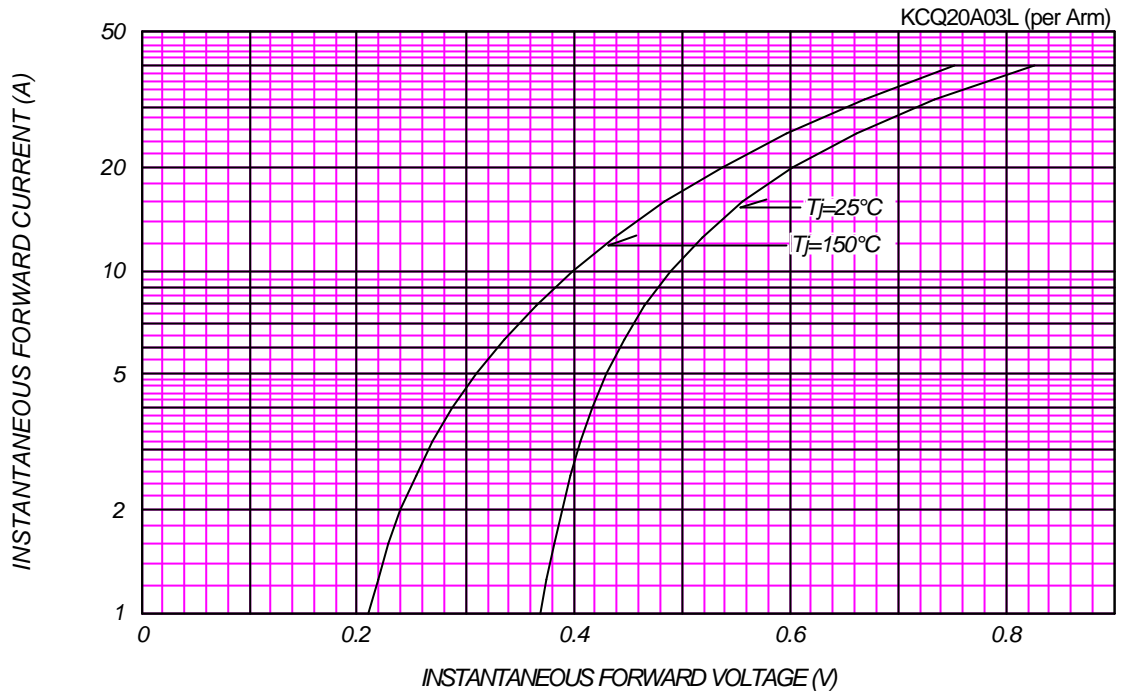
Approx Net Weight: 5.55g

Rating	Symbol	KCQ20A03L		Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30		V
Average Rectified Output Current	I_O	20	$T_c=119^\circ\text{C}$ 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		$\text{N}\cdot\text{m}$

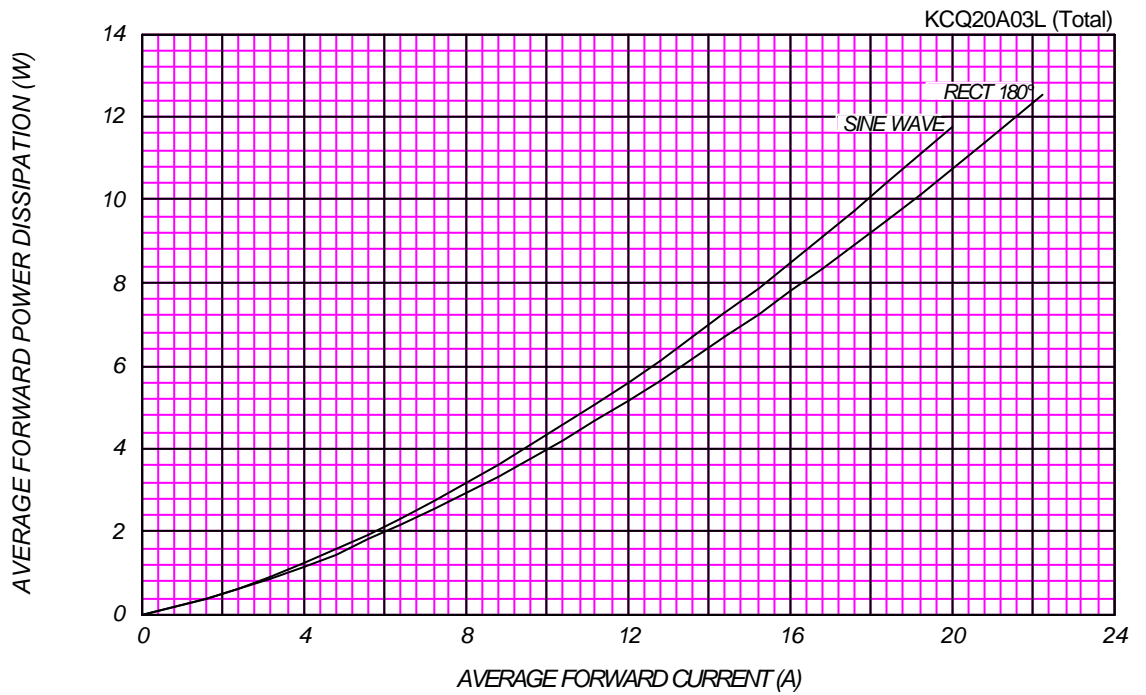
Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	$T_j= 25^\circ\text{C}$, $V_{RM}= V_{RRM}$ per Arm	-	-	10	mA
Peak Forward Voltage	V_{FM}	$T_j=25^\circ\text{C}$, $I_{FM}= 10\text{A}$ per Arm	-	-	0.49	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	1.5	$^\circ\text{C}/\text{W}$

FORWARD CURRENT VS. VOLTAGE



AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

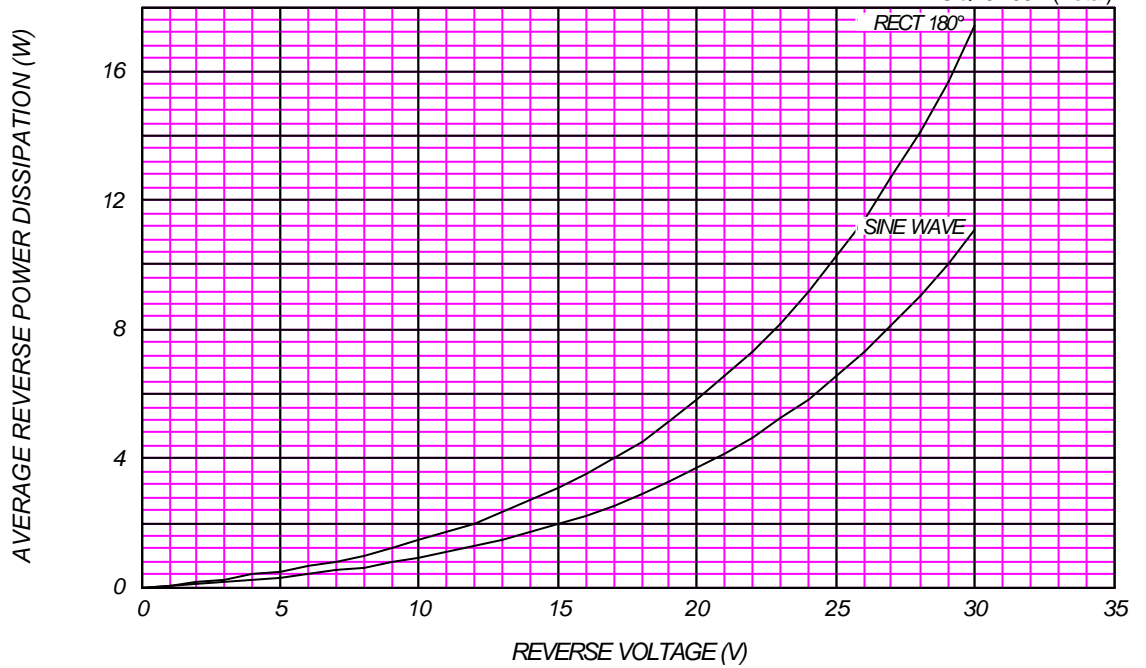
$T_j = 150\text{ }^\circ\text{C}$

KCQ20A03L (per Arm)



AVERAGE REVERSE POWER DISSIPATION

KCQ20A03L (Total)

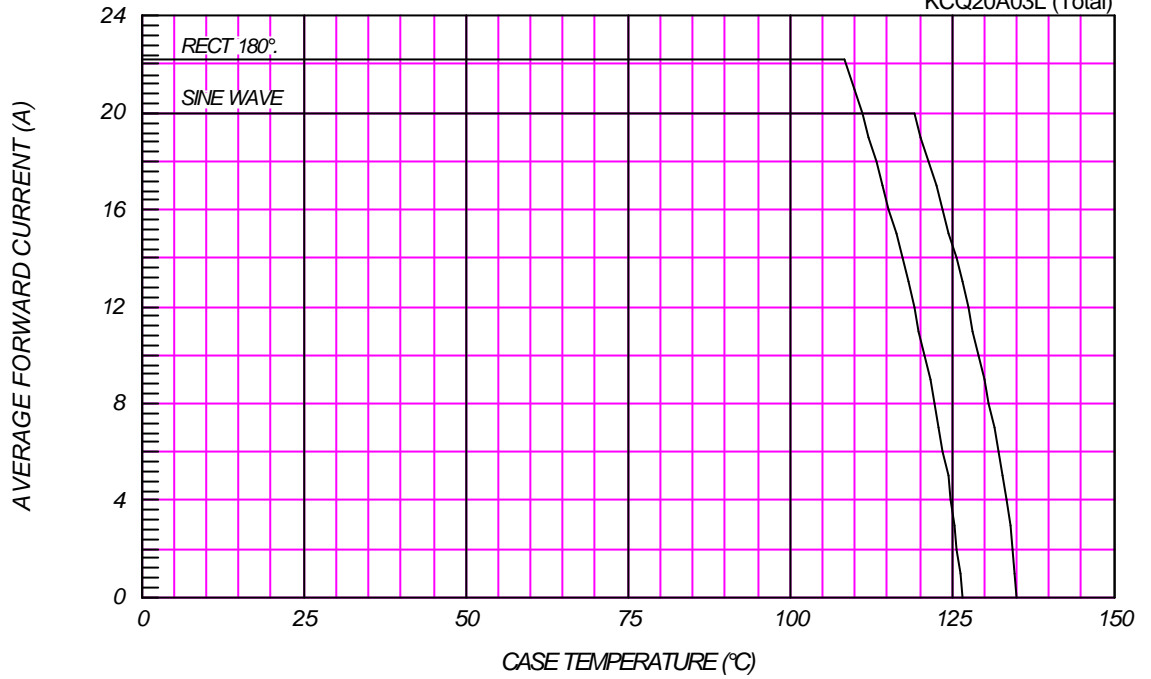




AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=30V$

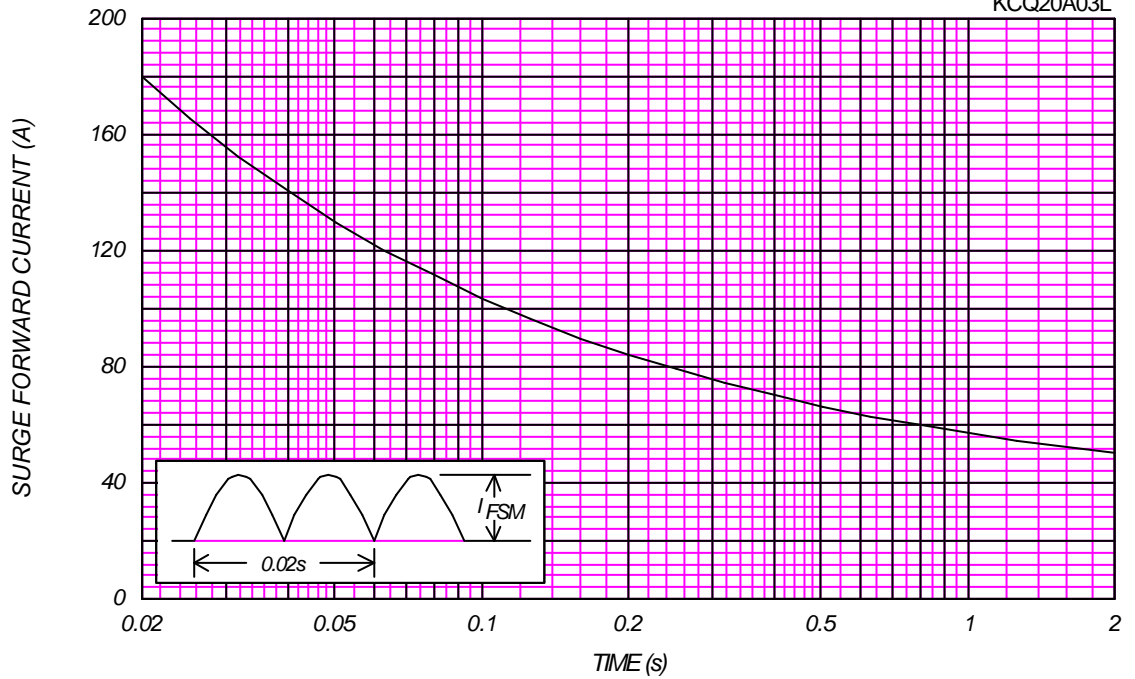
KCQ20A03L (Total)



SURGE CURRENT RATINGS

$f=50\text{Hz}$, Sine Wave, Non-Repetitive, No Load

KCQ20A03L



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

KCQ20A03L (per Arm)

