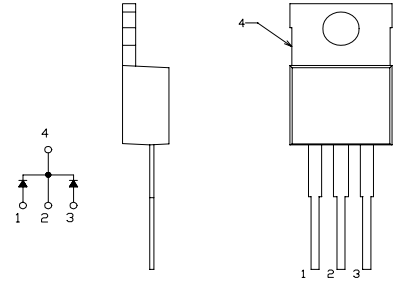


# SBD Type : GCQ30A06

OUTLINE DRAWING

## FEATURES

- \*Similar to TO-220AB Case
- \*Dual Diodes – Cathode Common
- \*Low Forward Voltage Drop
- \*High Surge Capability
- \*Tj=150 °C operation



## Maximum Ratings

Approx Net Weight: 1.9g

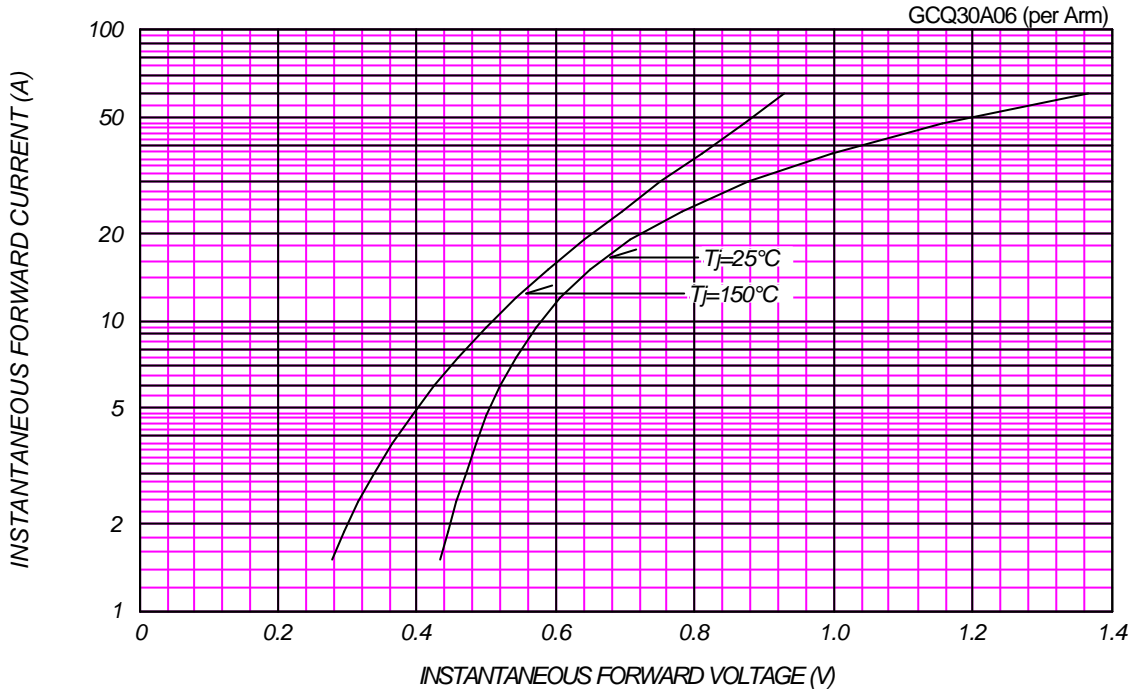
Rating	Symbol	GCQ30A06			Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	60			V
Average Rectified Output Current	$I_O$	30	$T_c=94^{\circ}C$	50 Hz Full Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	33.3			A
Surge Forward Current	$I_{FSM}$	200	50Hz Full Sine Wave ,1cycle Non-repetitive		A
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

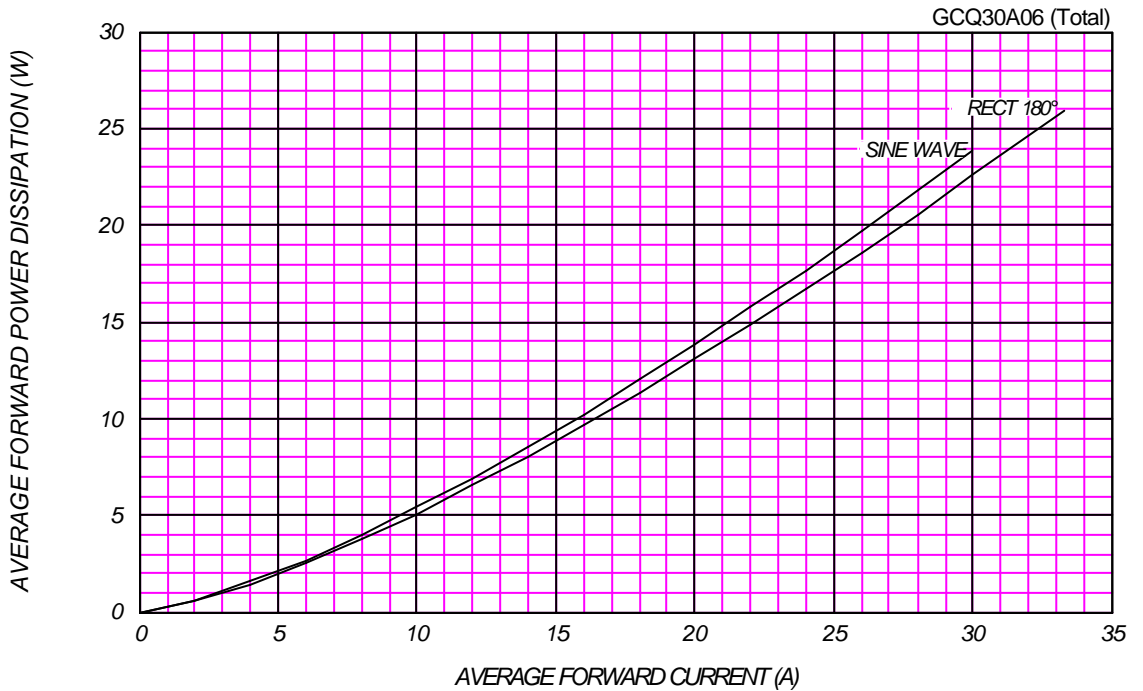
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j= 25^{\circ}C, V_{RM}= V_{RRM}$ per arm	-	-	15	mA
Peak Forward Voltage	$V_{FM}$	$T_j= 25^{\circ}C, I_{FM}= 15 A$ per arm	-	-	0.65	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	1.5	$^{\circ}C/W$



FORWARD CURRENT VS. VOLTAGE



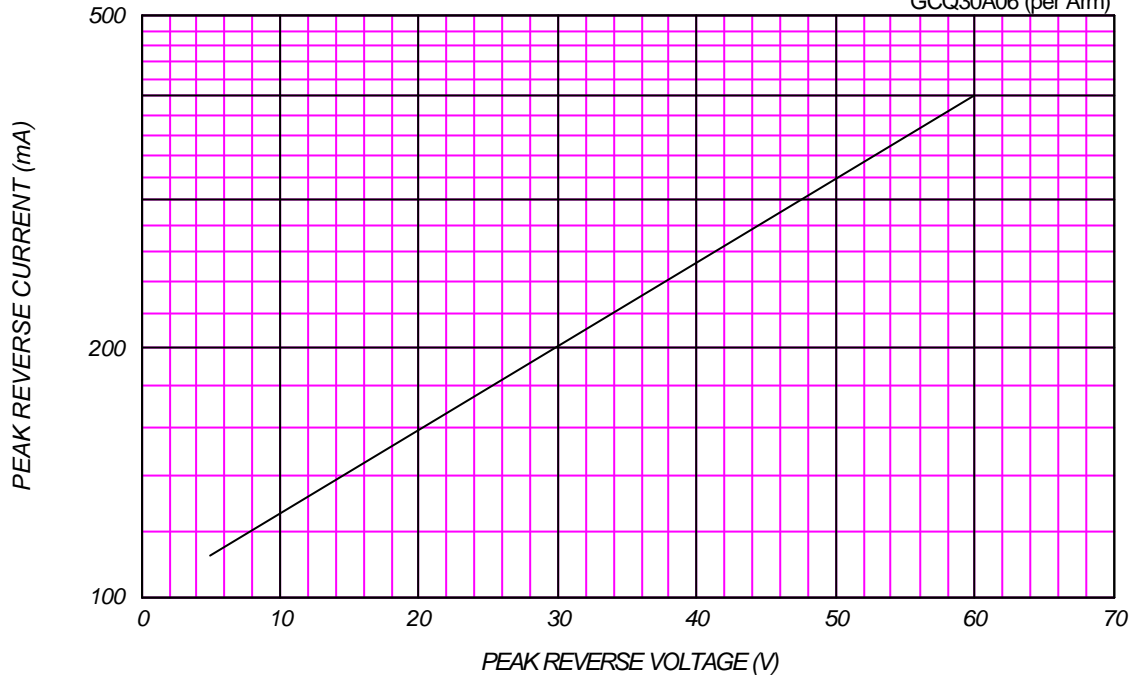
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

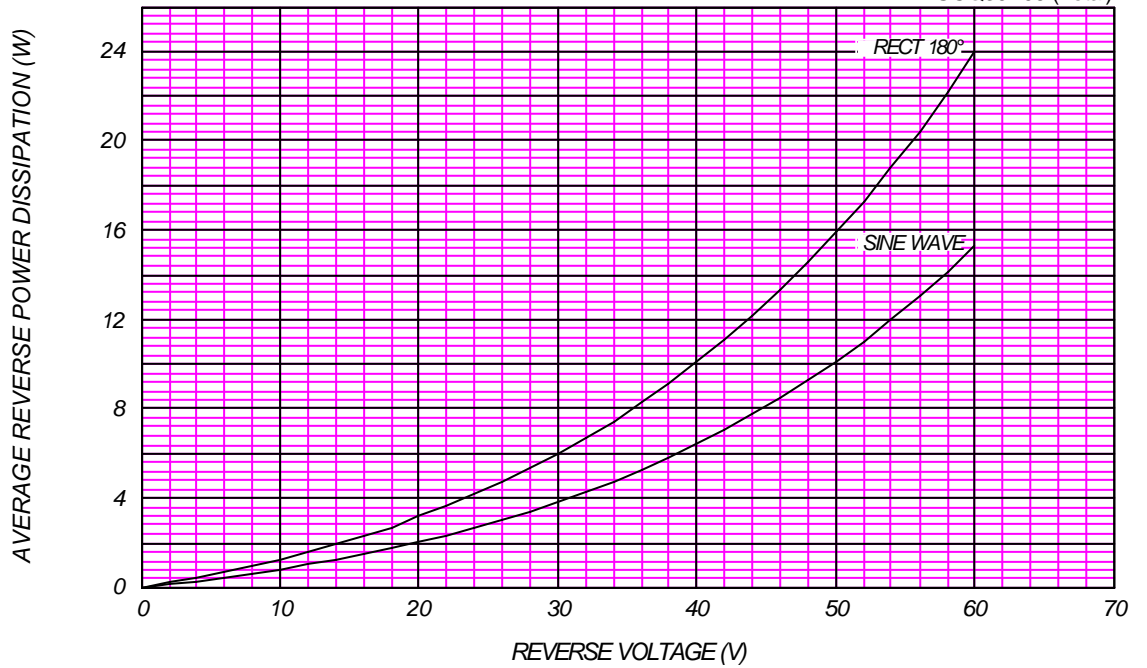
T<sub>j</sub> = 150 °C

GCQ30A06 (per Arm)



AVERAGE REVERSE POWER DISSIPATION

GCQ30A06 (Total)

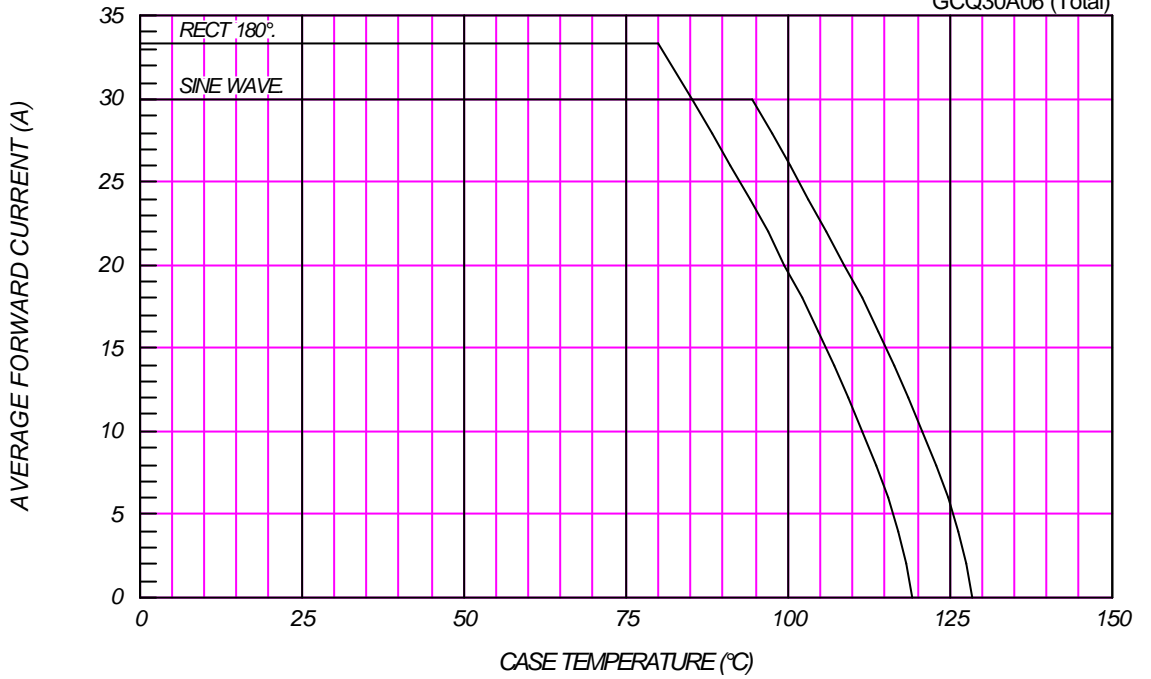




### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=60\text{ V}$

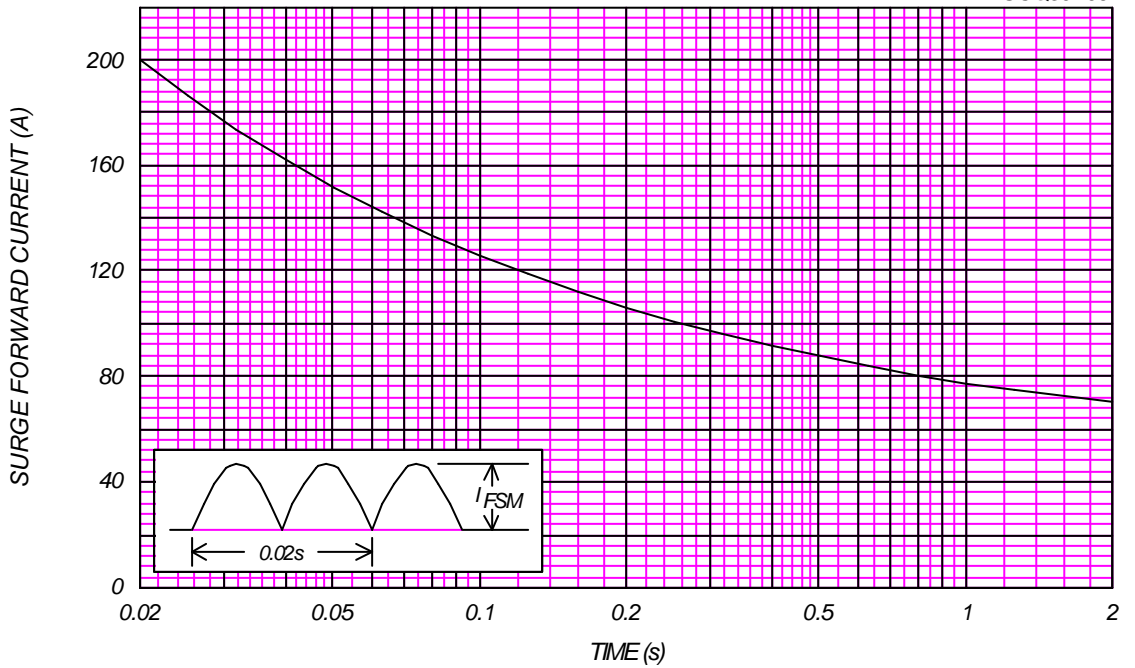
GCQ30A06 (Total)



### SURGE CURRENT RATINGS

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

GCQ30A06



### JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

GCQ30A06 (per Arm)

