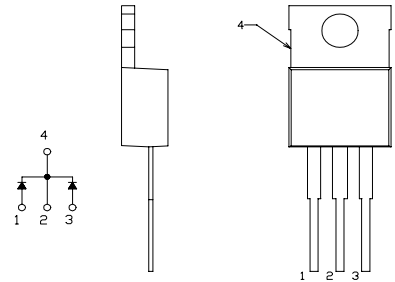


SBD Type : GCQ20A03L

OUTLINE DRAWING

FEATURES

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


Maximum Ratings

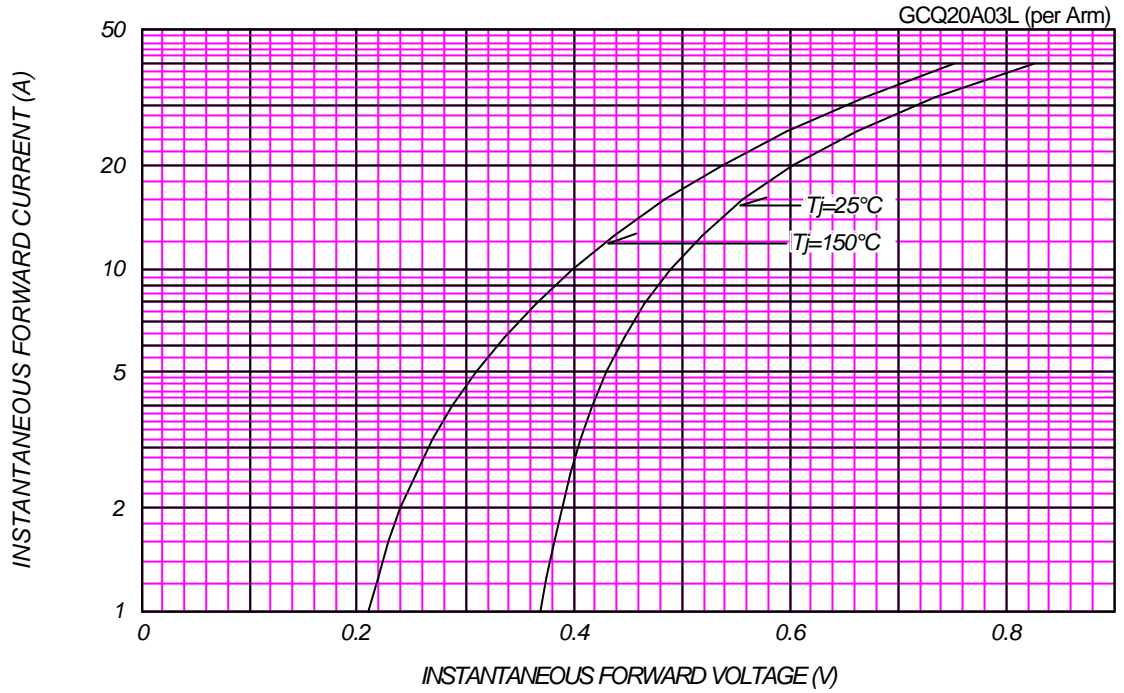
Approx Net Weight: 1.9g

Rating	Symbol	GCQ20A03L			Unit
Repetitive Peak Reverse Voltage	V _{RRM}	30			V
Repetitive Peak Surge Reverse Voltage	V _{RRSM}	35(pulse width ≤ 1μs duty ≤ 1/50)			V
Average Rectified Output Current	I _O	20	T _c =119°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			°C
Storage Temperature Range	T _{stg}	-40 to +150			°C
Mounting torque	F _{tor}	recommended torque = 0.5			N•m

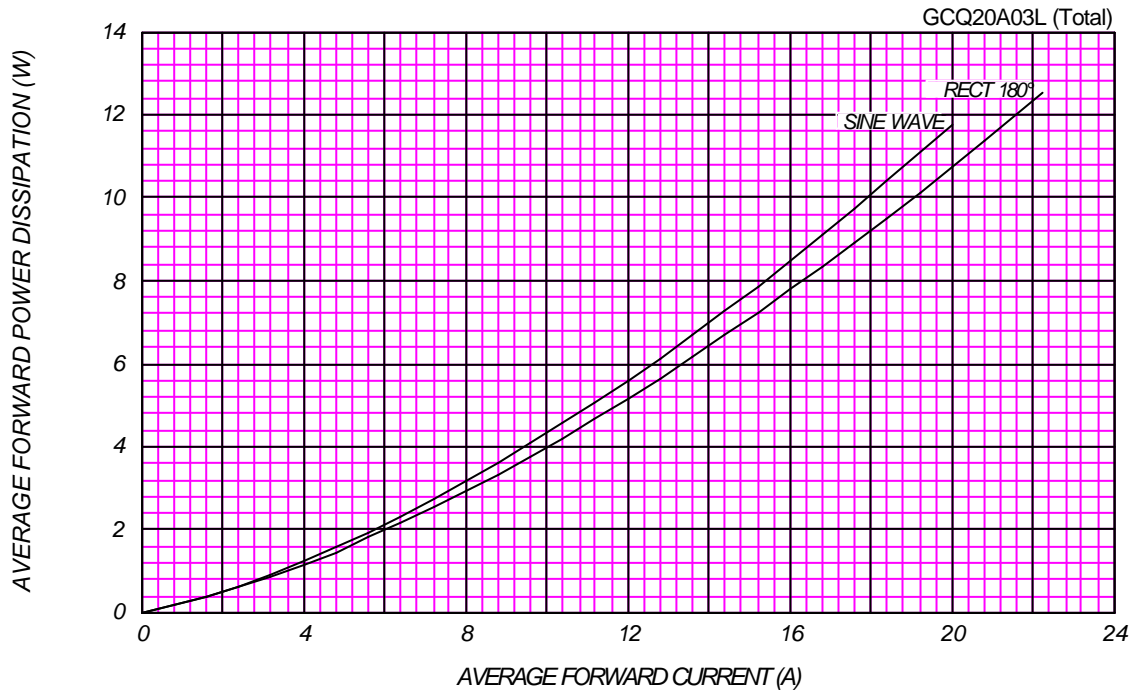
Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I _{RM}	T _j = 25°C, V _{RM} = V _{RRM} per arm	-	-	10	mA
Peak Forward Voltage	V _{FM}	T _j = 25°C, I _{FM} = 10 A per arm	-	-	0.49	V
Thermal Resistance	R _{th(j-c)}	Junction to Case	-	-	1.5	°C/W

FORWARD CURRENT VS. VOLTAGE



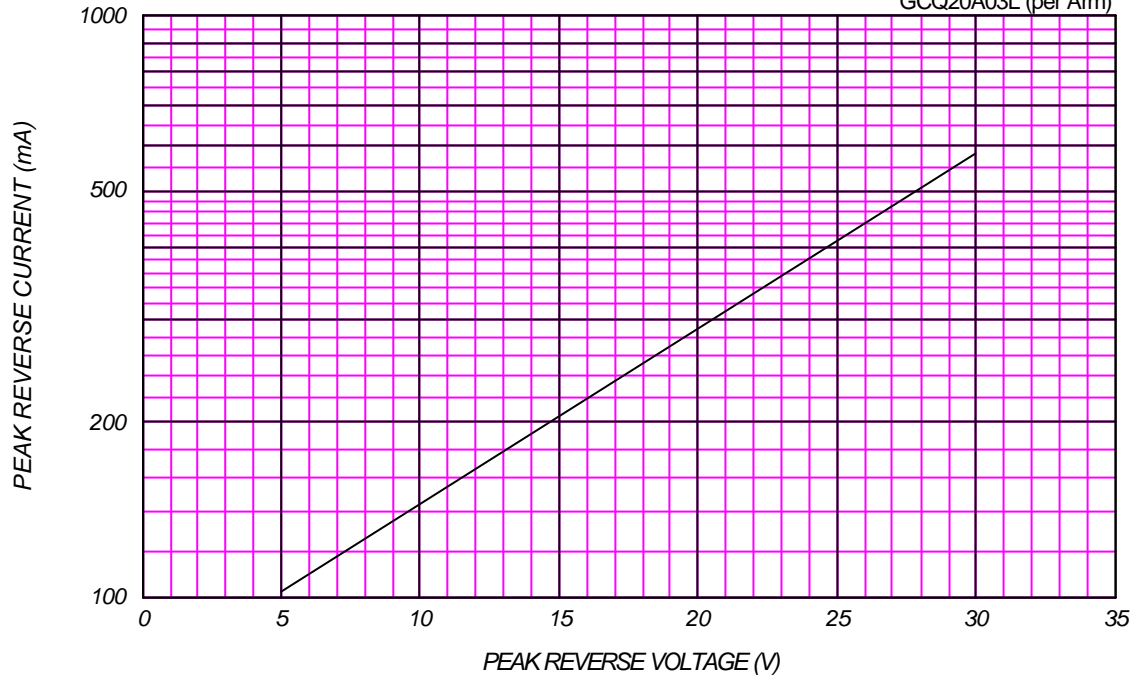
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

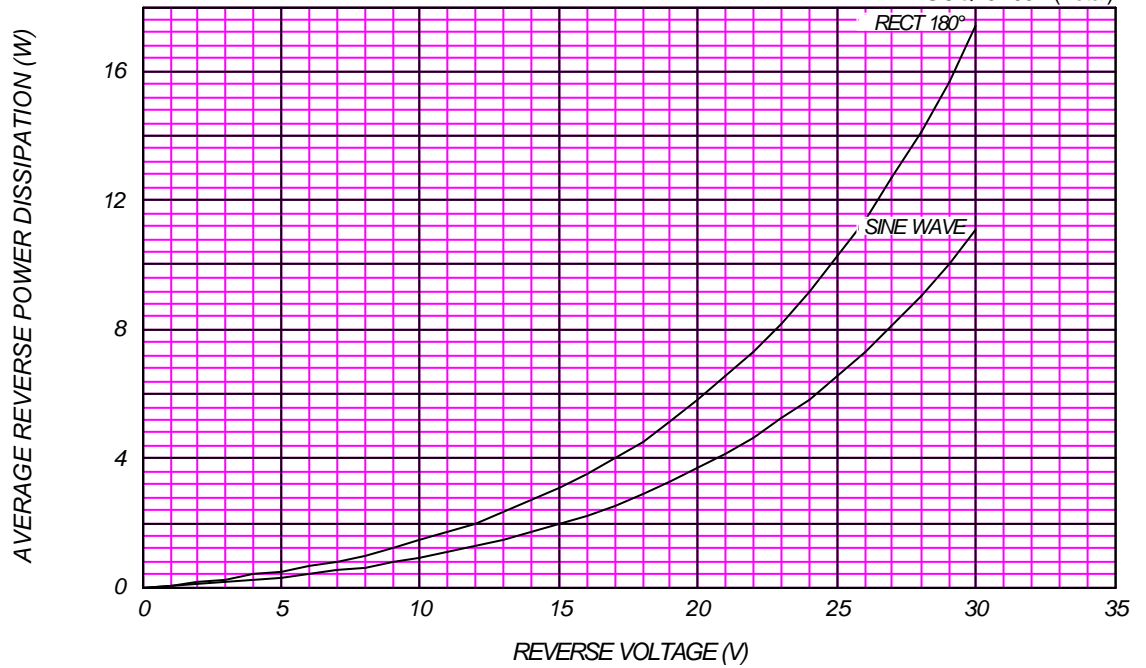
T_j = 150 °C

GCQ20A03L (per Arm)



AVERAGE REVERSE POWER DISSIPATION

GCQ20A03L (Total)

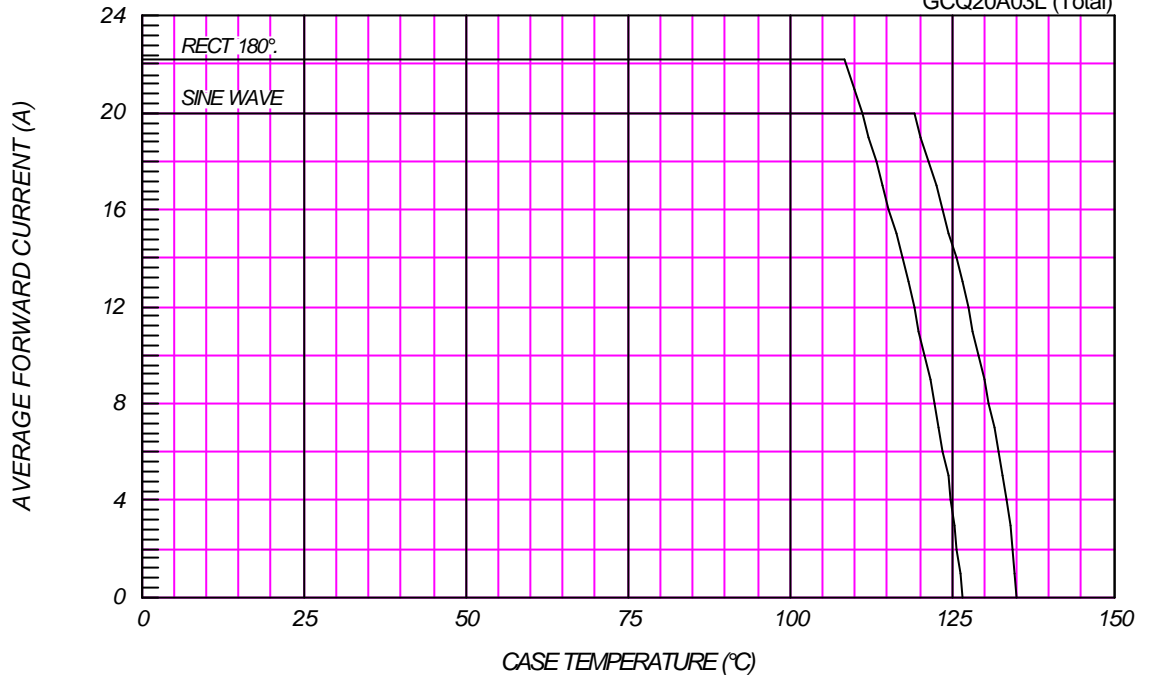




AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=30V$

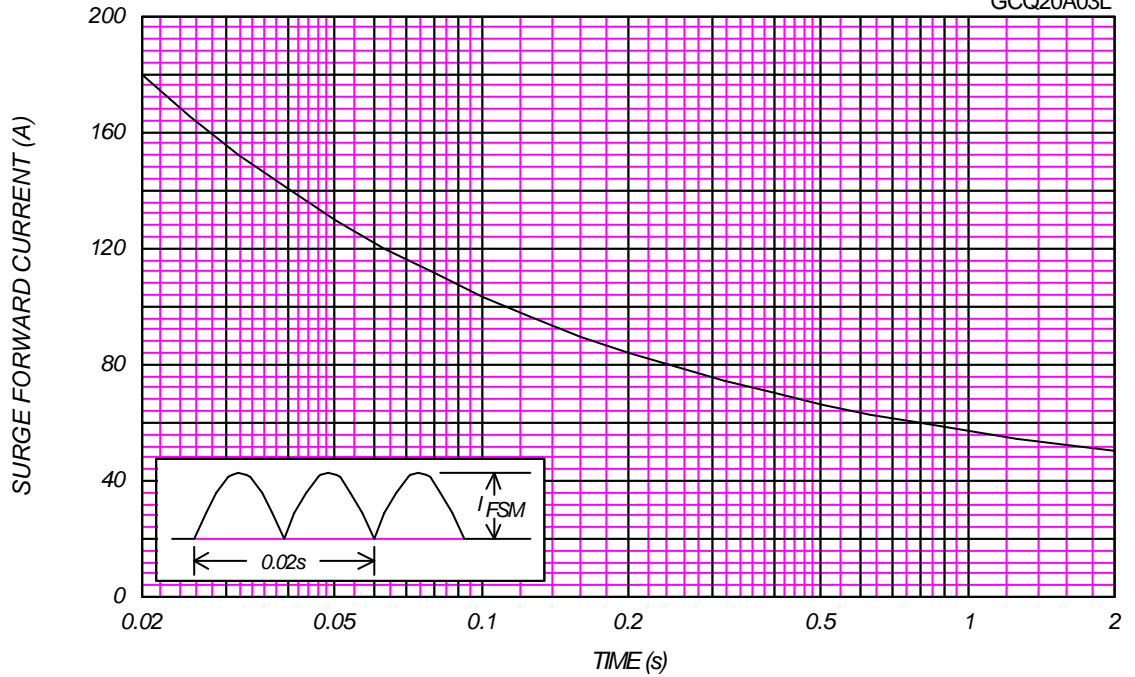
GCQ20A03L (Total)



SURGE CURRENT RATINGS

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

GCQ20A03L



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

GCQ20A03L (per Arm)

