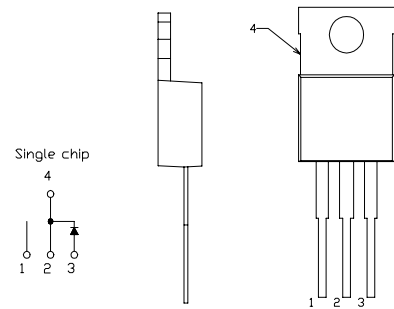


SBD Type : GSQ05A03LB

OUTLINE DRAWING

FEATURES

- *Similar to TO-220AC Case
- *Extremely Low Forward Voltage Drop
- *Low Power Loss,High Efficiency
- *High Surge Capability
- *Tj=150 °C operation



Maximum Ratings

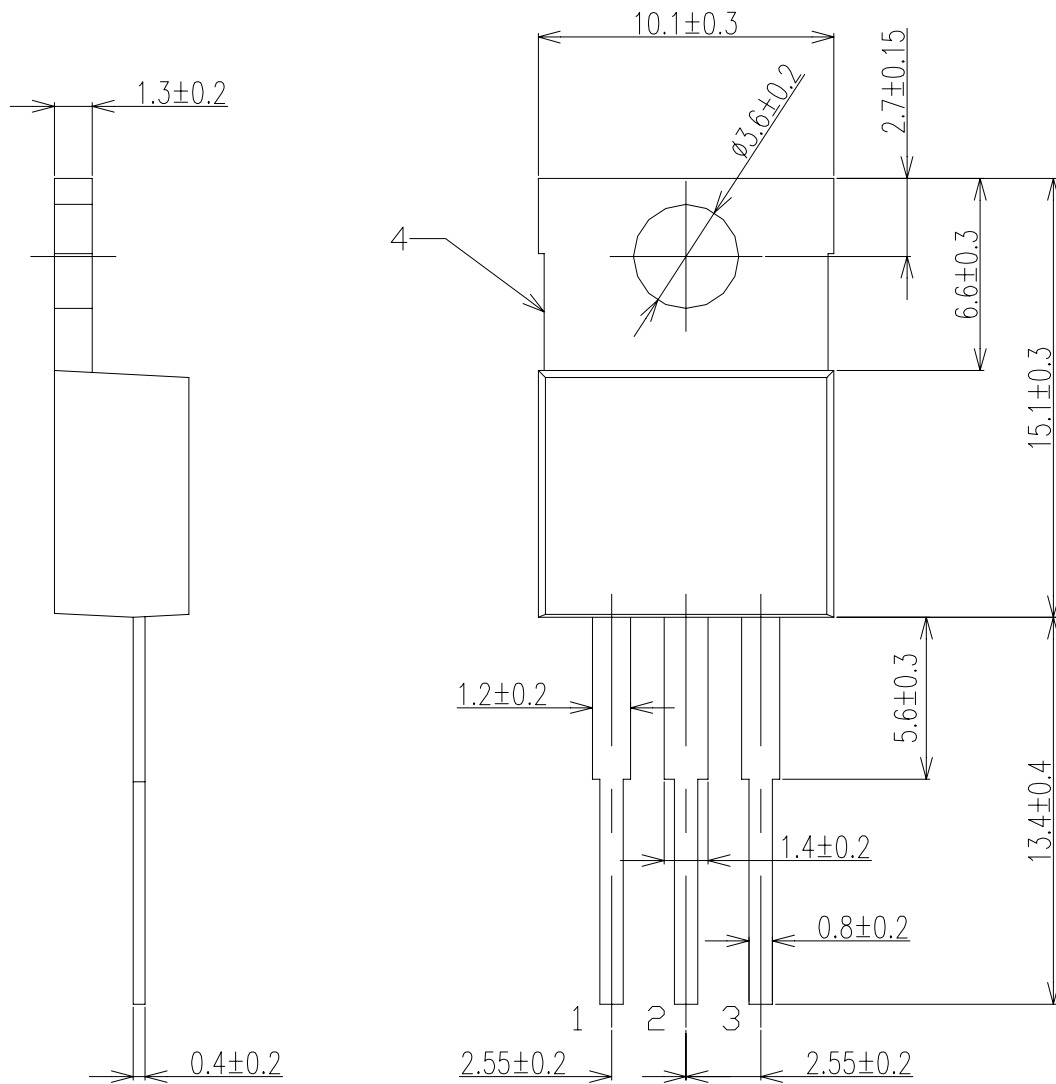
Approx Net Weight: 1.9g

Rating	Symbol	GSQ05A03LB			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	5	Tc=122°C	50 Hz half Sine Wave Resistive Load	A
RMS Forward Current	I _{F(RMS)}	7.85			A
Surge Forward Current	I _{FSM}	120	50Hz Half 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

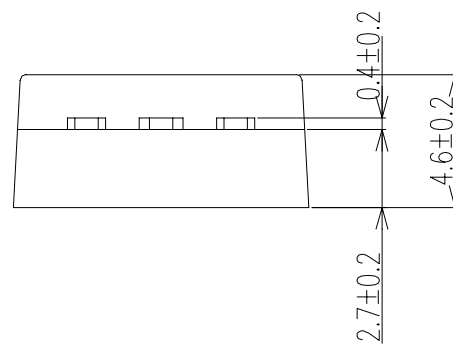
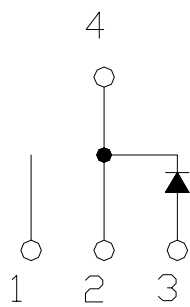
Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	$T_j = 25^\circ C, V_{RM} = V_{RRM}$	-	-	5	mA
Peak Forward Voltage	V_{FM}	$T_j = 25^\circ C, I_{FM} = 5 A$	-	-	0.47	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	5	°C /W

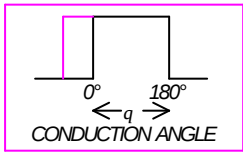
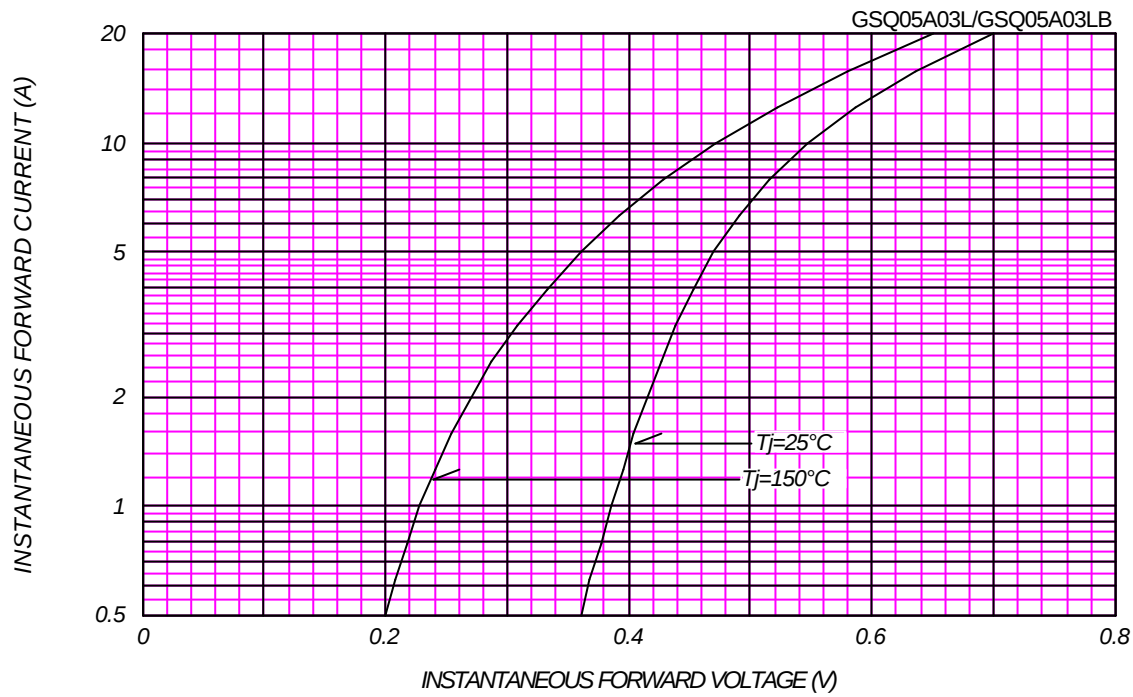
GSQ_B_ OUTLINE DRAWING (Dimensions in mm)



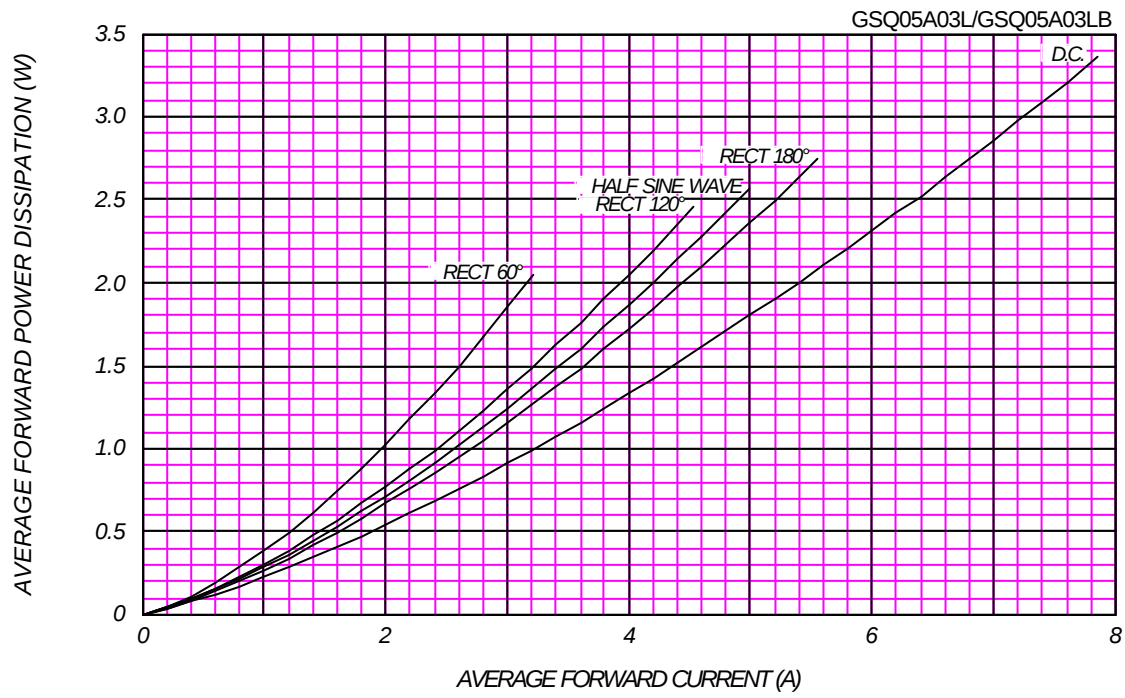
Single chip



FORWARD CURRENT VS. VOLTAGE



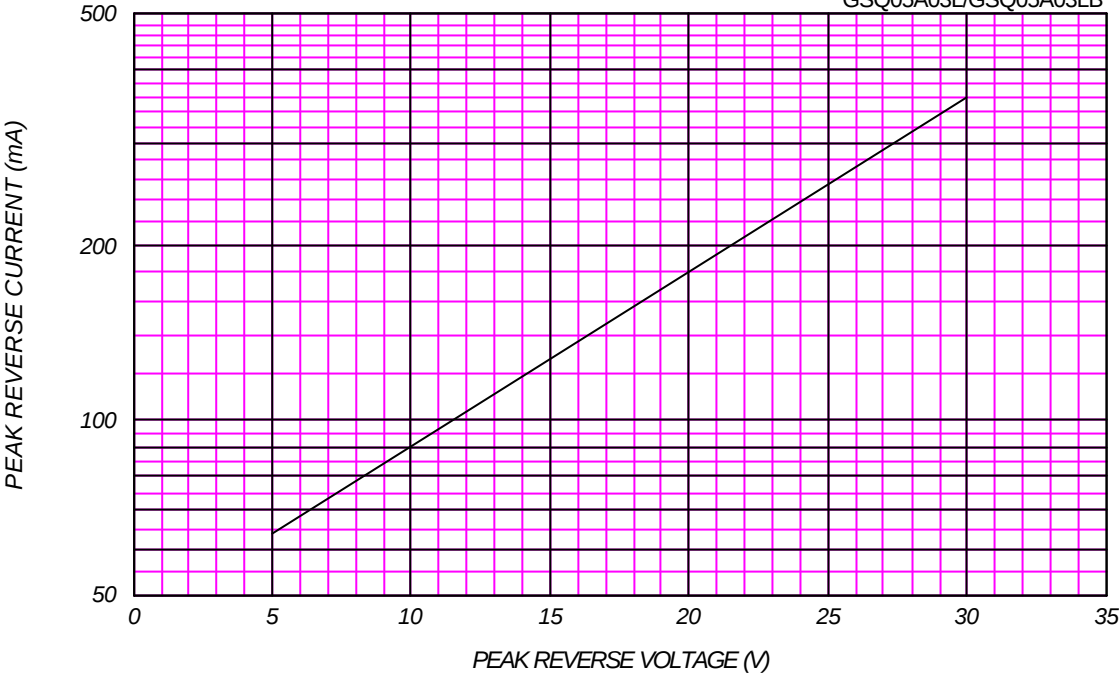
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

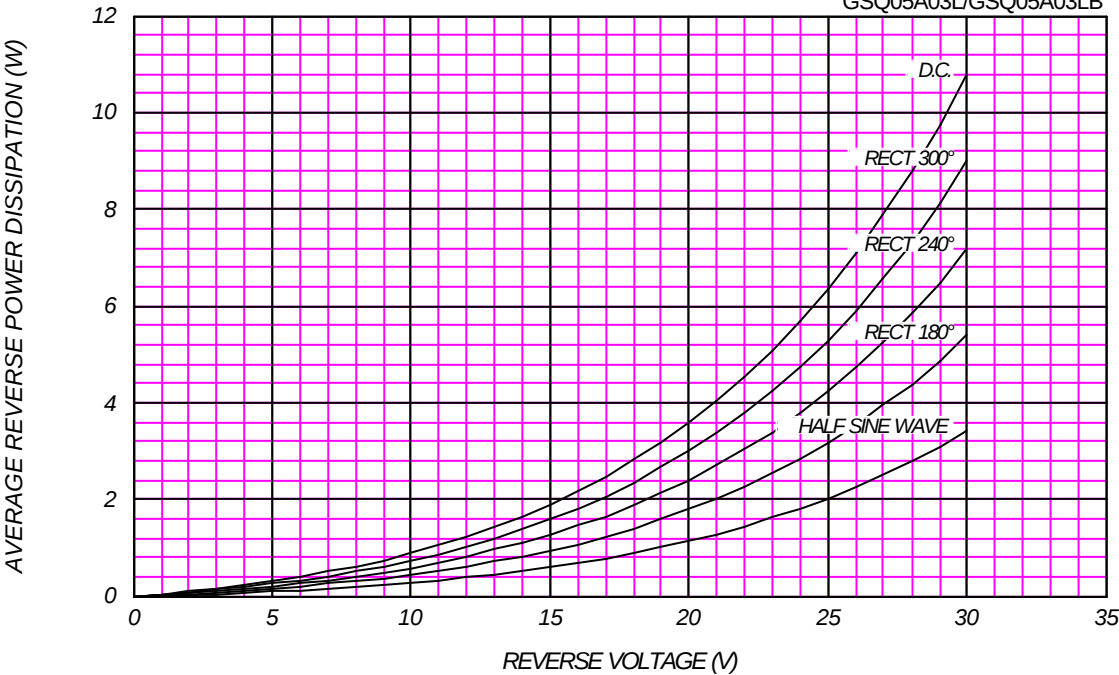
T_j = 150 °C

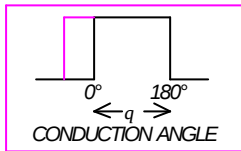
GSQ05A03L/GSQ05A03LB



AVERAGE REVERSE POWER DISSIPATION

GSQ05A03L/GSQ05A03LB

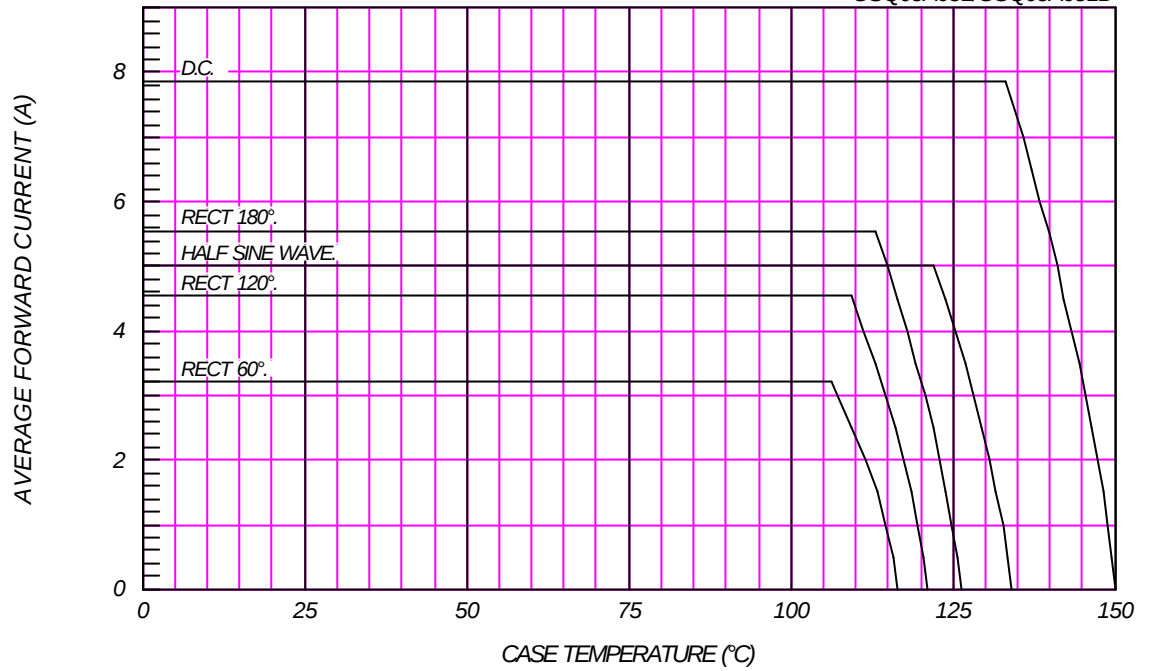




AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=30V$

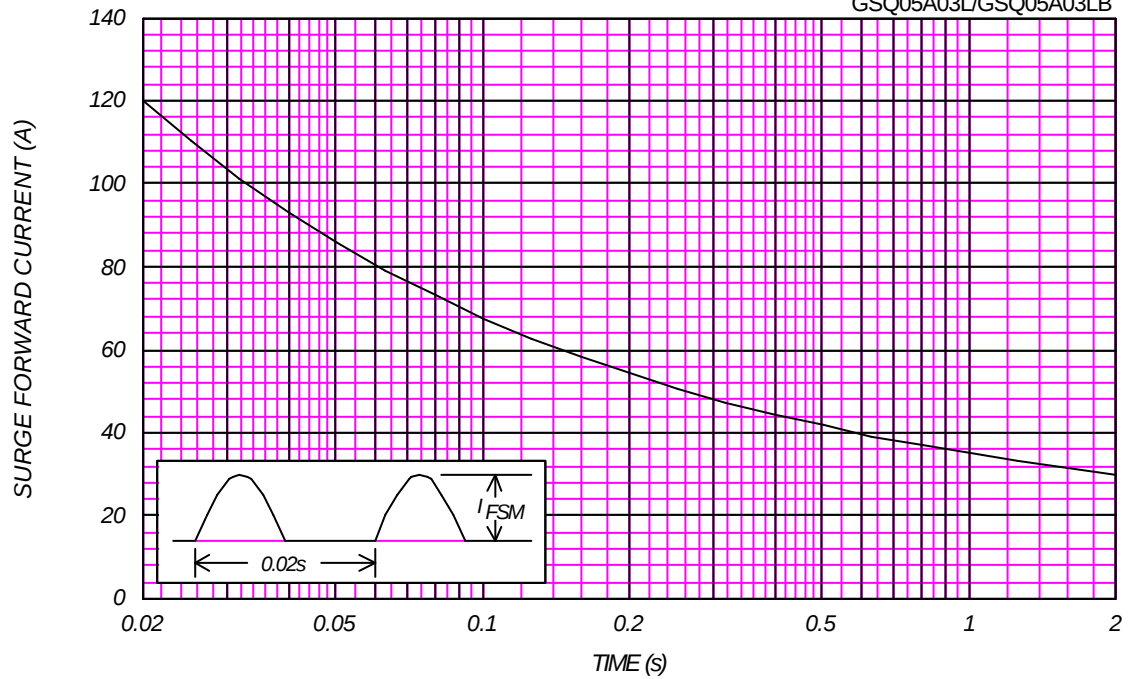
GSQ05A03L/GSQ05A03LB



SURGE CURRENT RATINGS

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

GSQ05A03L/GSQ05A03LB



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

GSQ05A03L/GSQ05A03LB

