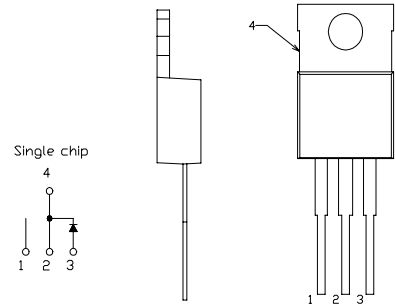


SBD Type : GSQ05A03LB

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

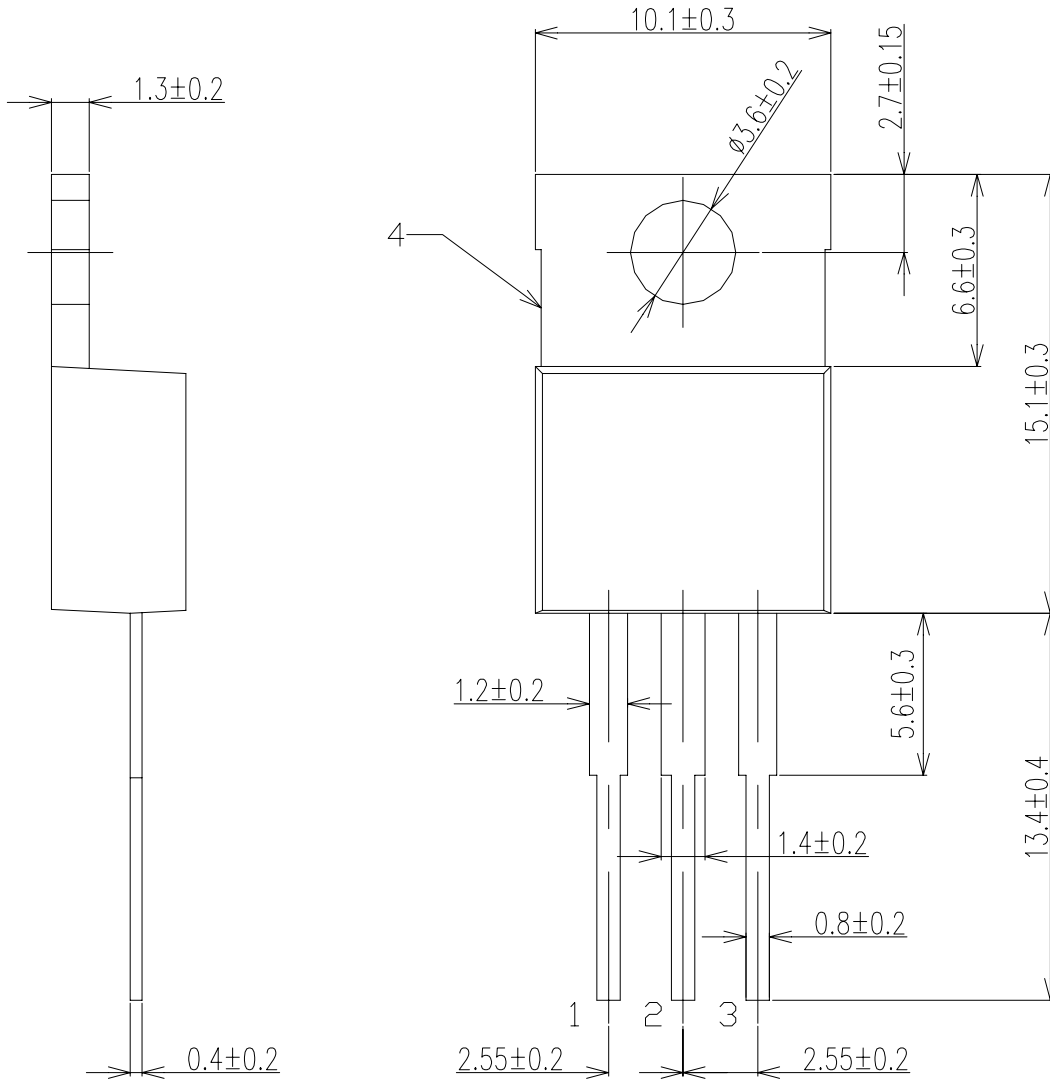
Approx Net Weight: 1.9g

Rating	Symbol	GSQ05A03LB		Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30		V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	35(pulse width $\leq 1\mu s$ duty $\leq 1/50$)		V
Average Rectified Output Current	I_O	5	$T_c=122^\circ C$ 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

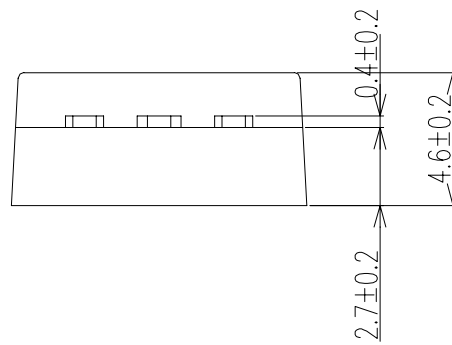
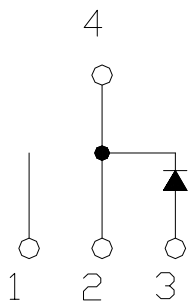
Electrical • Thermal Characteristics

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

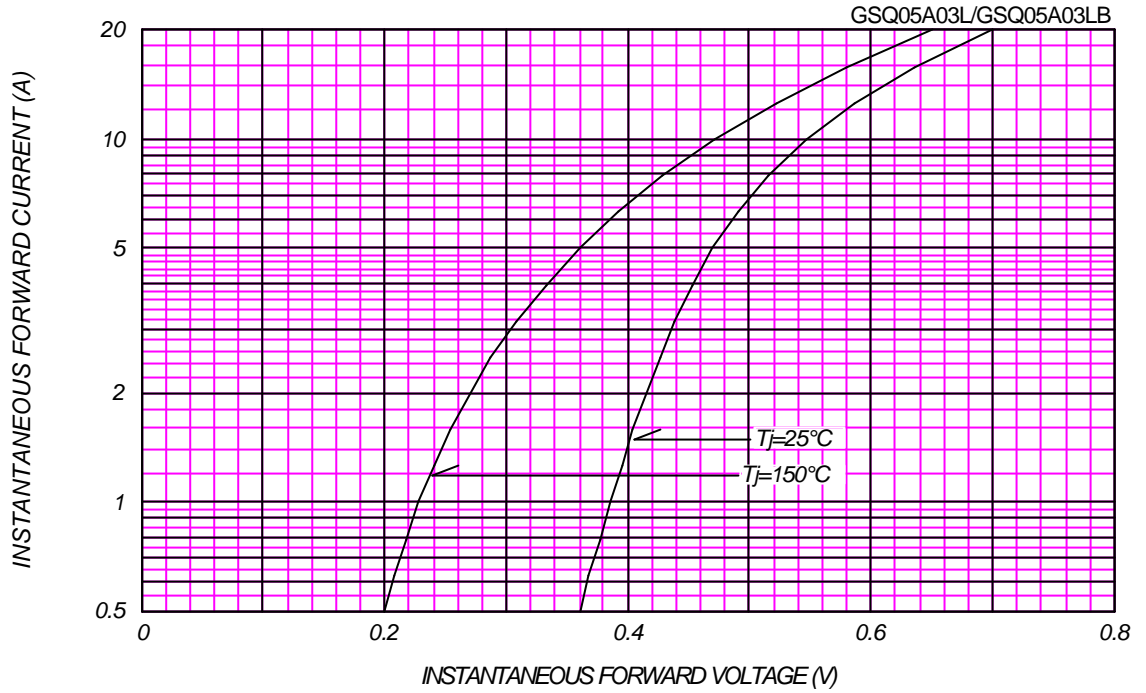
GSQ_B_ OUTLINE DRAWING (Dimensions in mm)



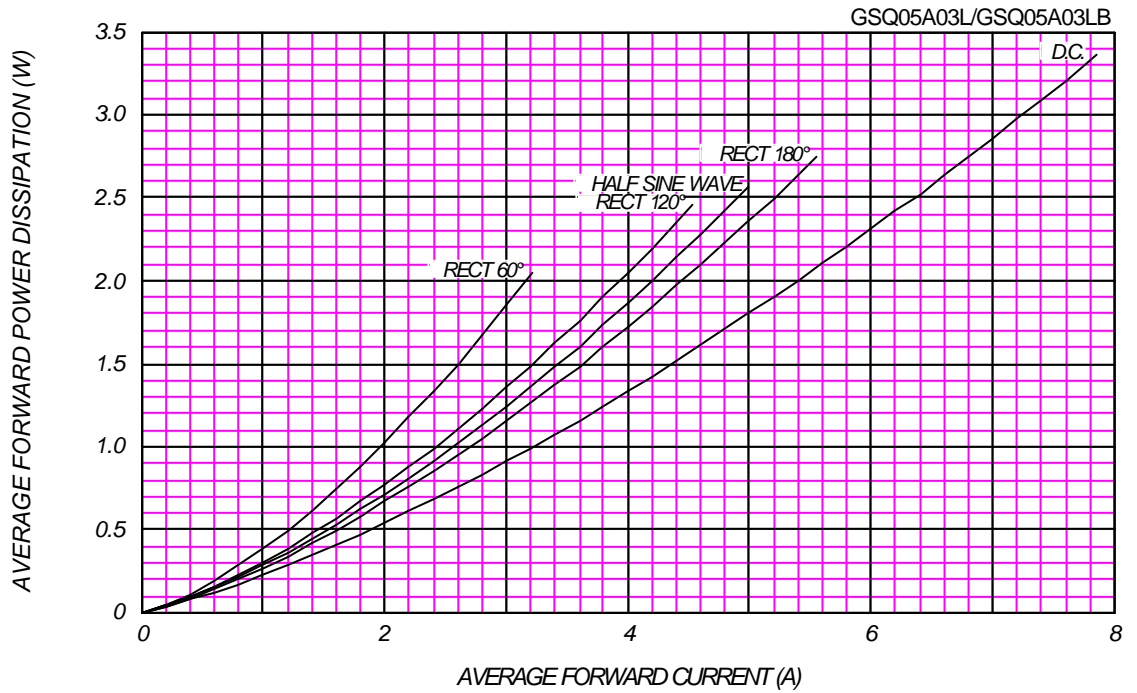
Single chip



FORWARD CURRENT VS. VOLTAGE



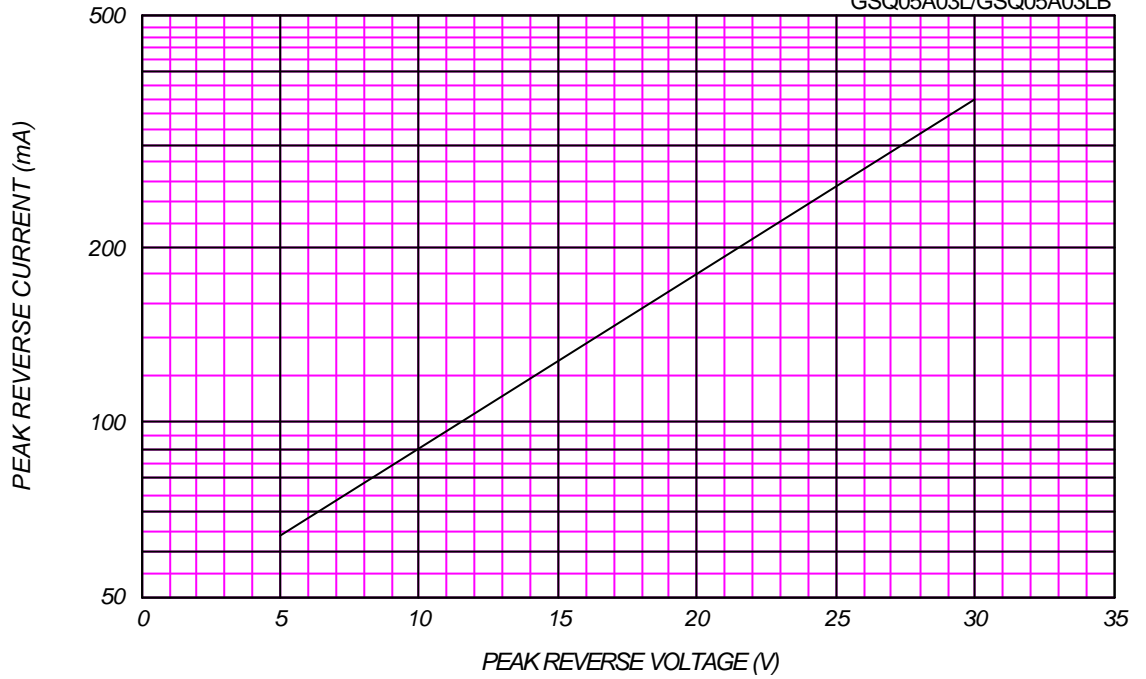
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

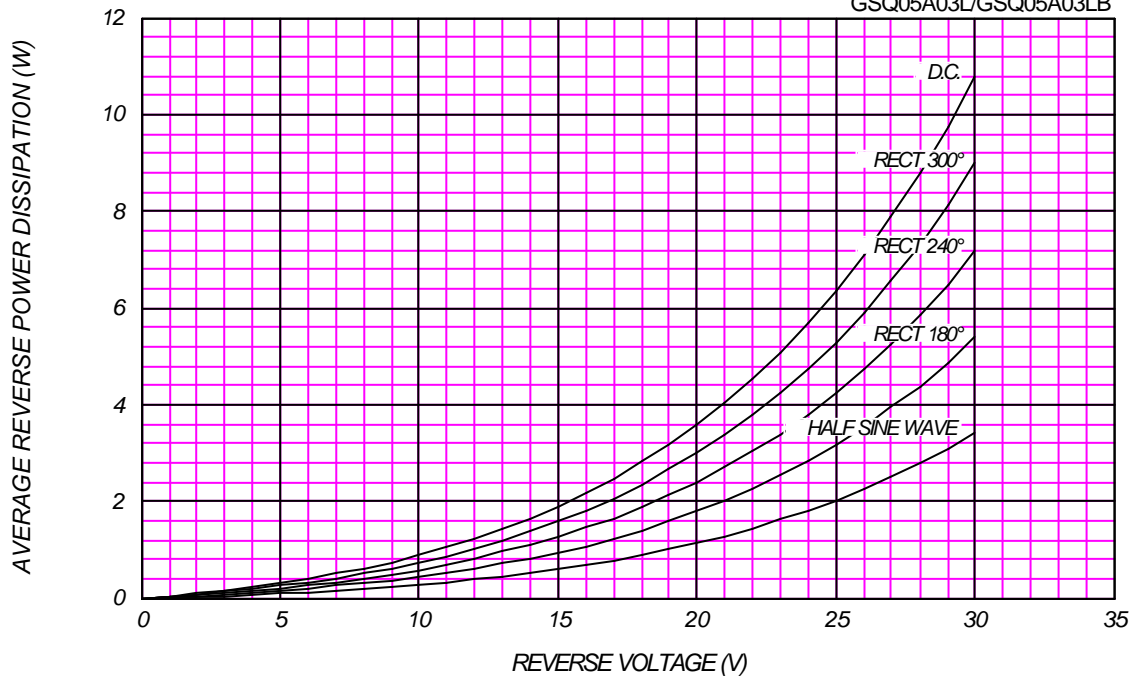
T_j = 150 °C

GSQ05A03L/GSQ05A03LB



AVERAGE REVERSE POWER DISSIPATION

GSQ05A03L/GSQ05A03LB

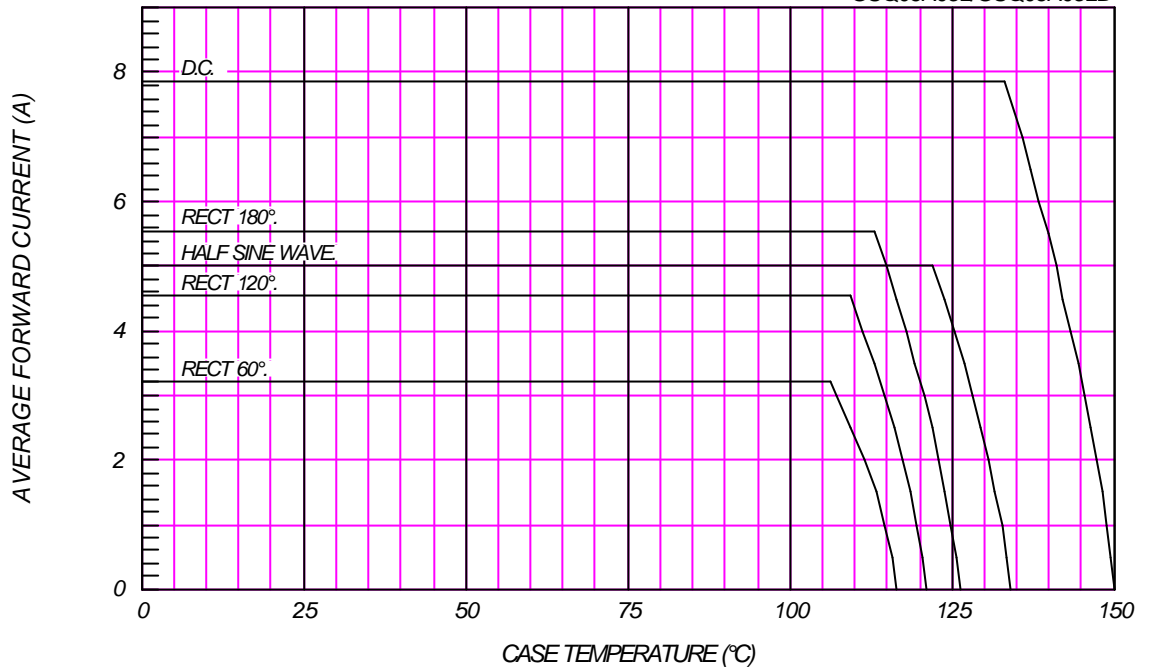




AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=30V$

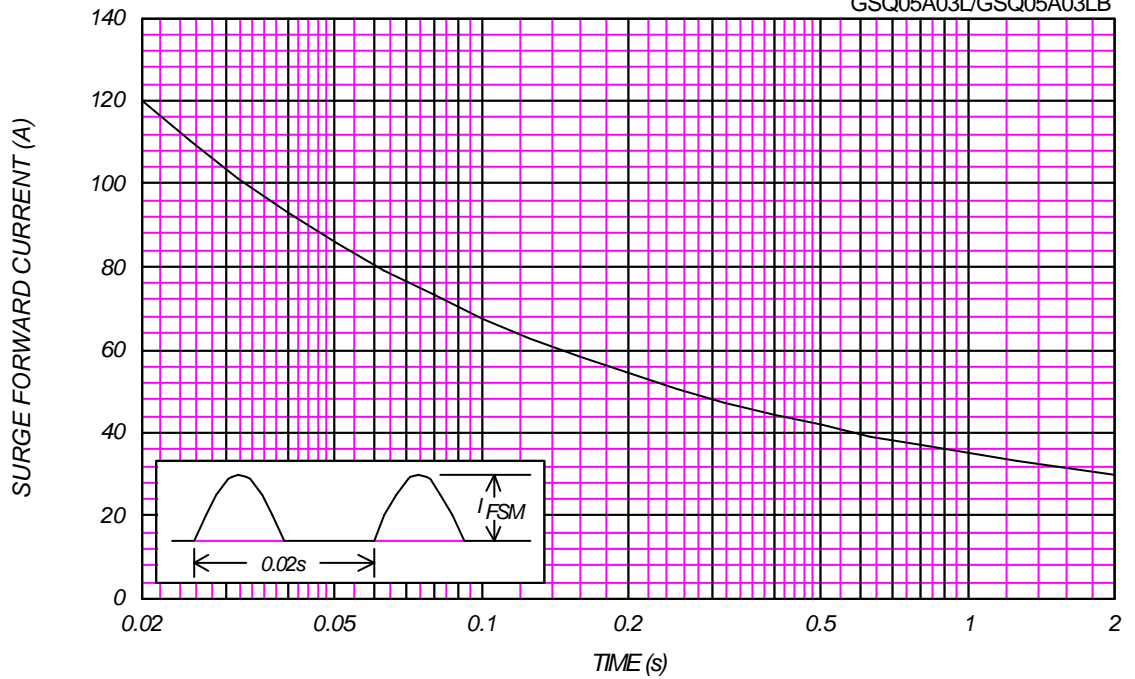
GSQ05A03L/GSQ05A03LB



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

