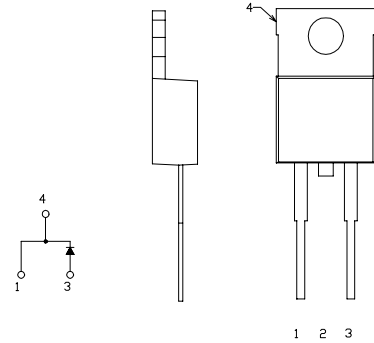


# SBD Type : GSQ10A06

OUTLINE DRAWING

## FEATURES

- \*Similar to TO-220AC Case
- \*Low Forward Voltage Drop
- \*Low Power Loss, High Efficiency
- \*High Surge Capability
- \*T<sub>j</sub>=150 °C operation



## Maximum Ratings

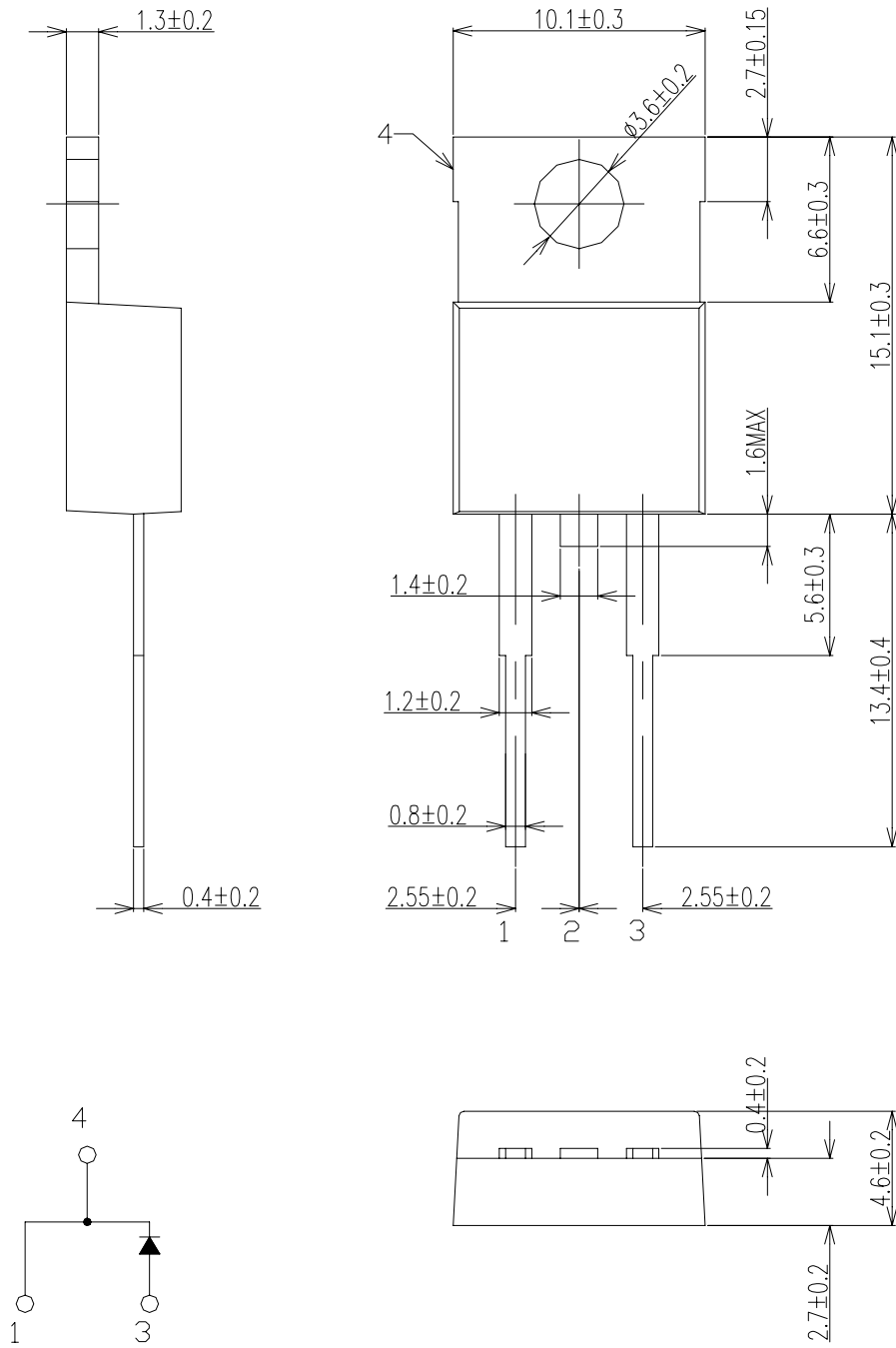
Approx Net Weight: 1.85g

Rating	Symbol	GSQ10A06			Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	60			V
Non-repetitive Peak Reverse Voltage	V <sub>RSM</sub>	65			V
Average Rectified Output Current	I <sub>O</sub>	10	T <sub>c</sub> =111°C	50 Hz half Sine Wave Resistive Load	A
RMS Forward Current	I <sub>F(RMS)</sub>	15.7			A
Surge Forward Current	I <sub>FSM</sub>	150	50Hz Half Sine Wave ,1cycle Non-repetitive		A
Operating Junction Temperature Range	T <sub>jw</sub>	-40 to +150			°C
Storage Temperature Range	T <sub>stg</sub>	-40 to +150			°C
Mounting torque	F <sub>tor</sub>	recommended torque = 0.5			N•m

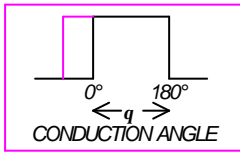
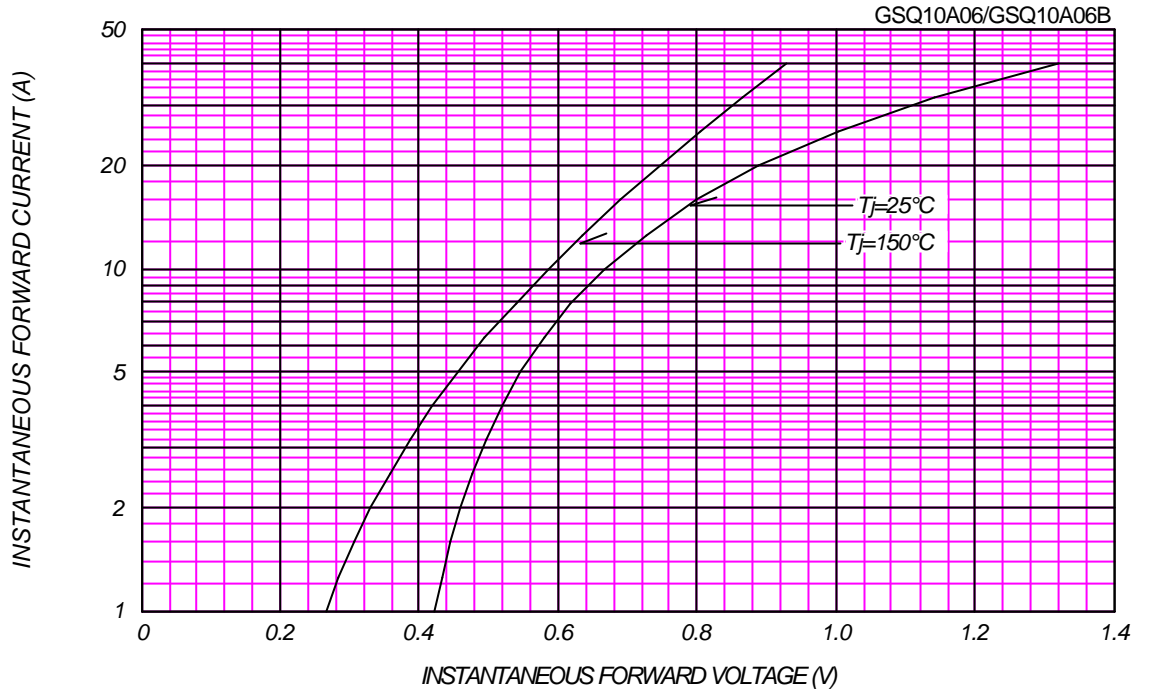
## Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I <sub>RM</sub>	T <sub>j</sub> = 25°C, V <sub>RM</sub> = V <sub>RRM</sub>	-	-	10	mA
Peak Forward Voltage	V <sub>FM</sub>	T <sub>j</sub> = 25°C, I <sub>FM</sub> = 10 A	-	-	0.67	V
Thermal Resistance	R <sub>th(j-c)</sub>	Junction to Case	-	-	3	°C/W

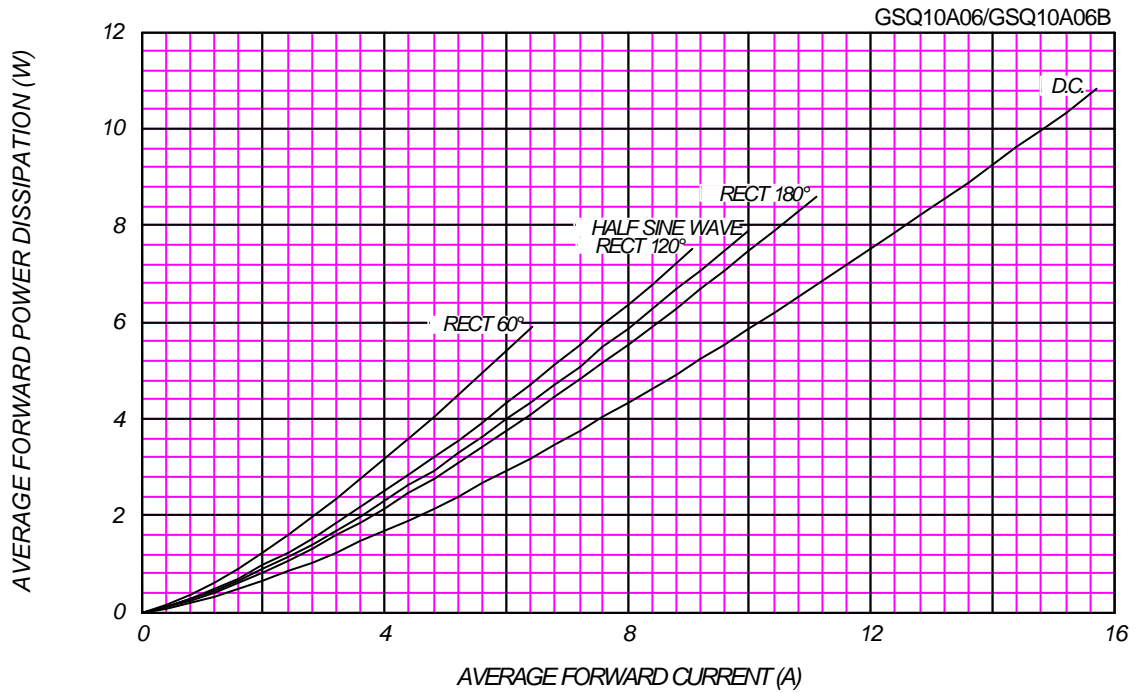
GSQ\_A\_OUTLINE DRAWING (Dimensions in mm)



FORWARD CURRENT VS. VOLTAGE



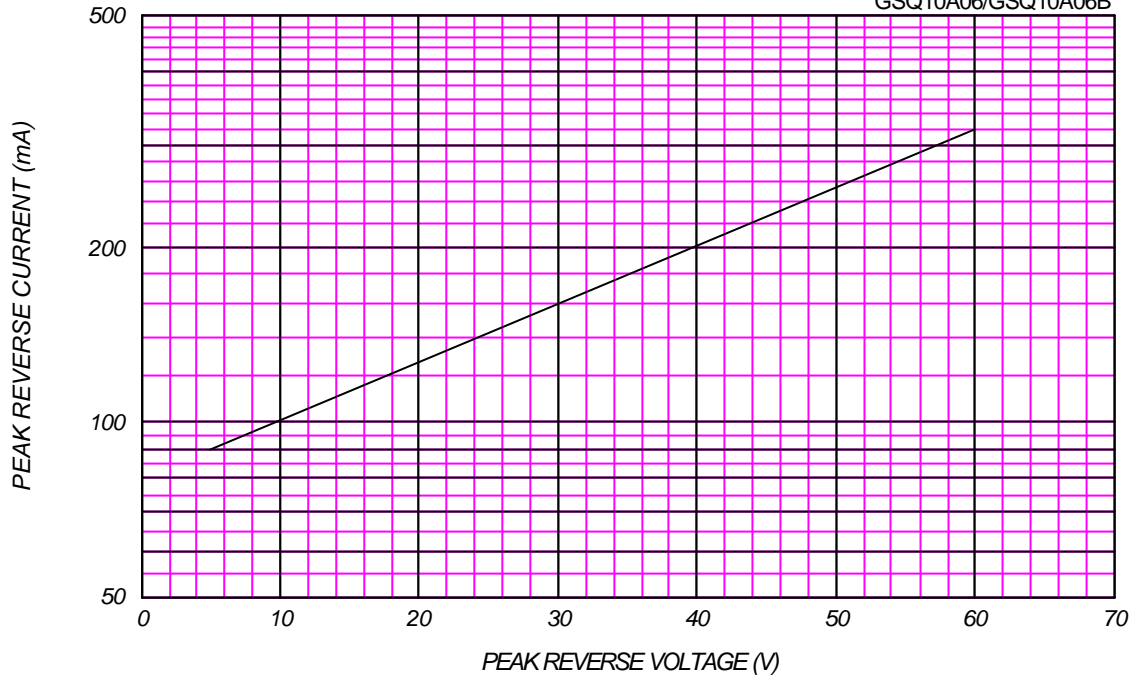
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

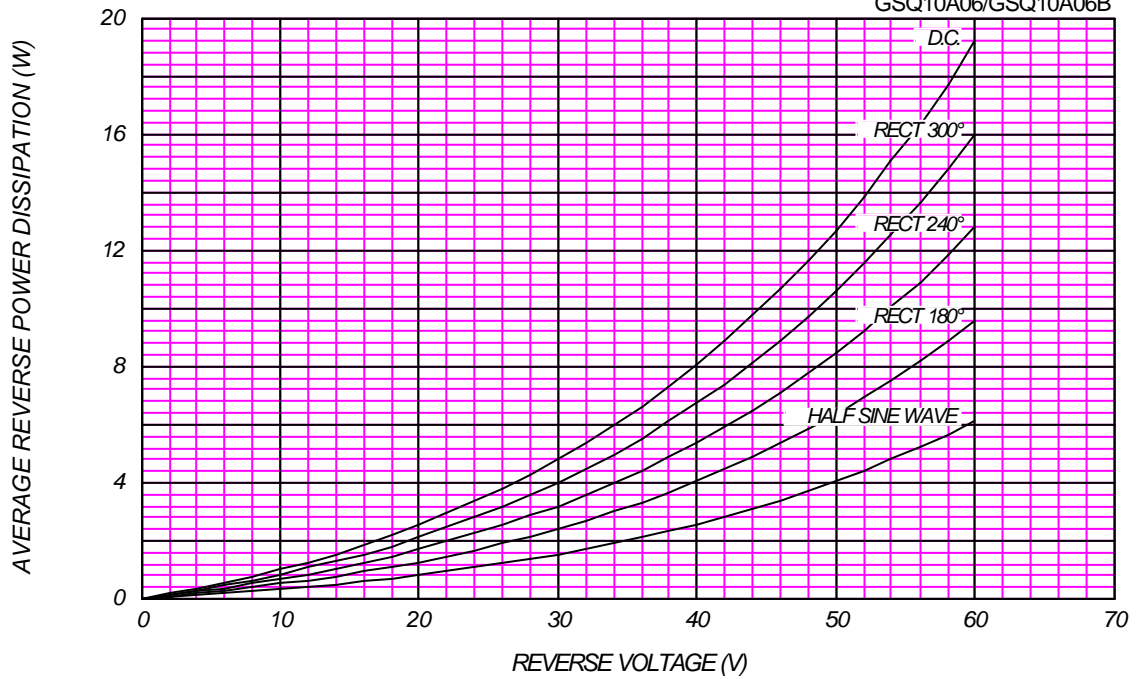
$T_j = 150\text{ }^\circ\text{C}$

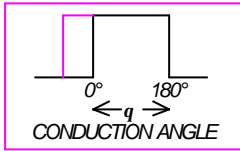
GSQ10A06/GSQ10A06B



AVERAGE REVERSE POWER DISSIPATION

GSQ10A06/GSQ10A06B

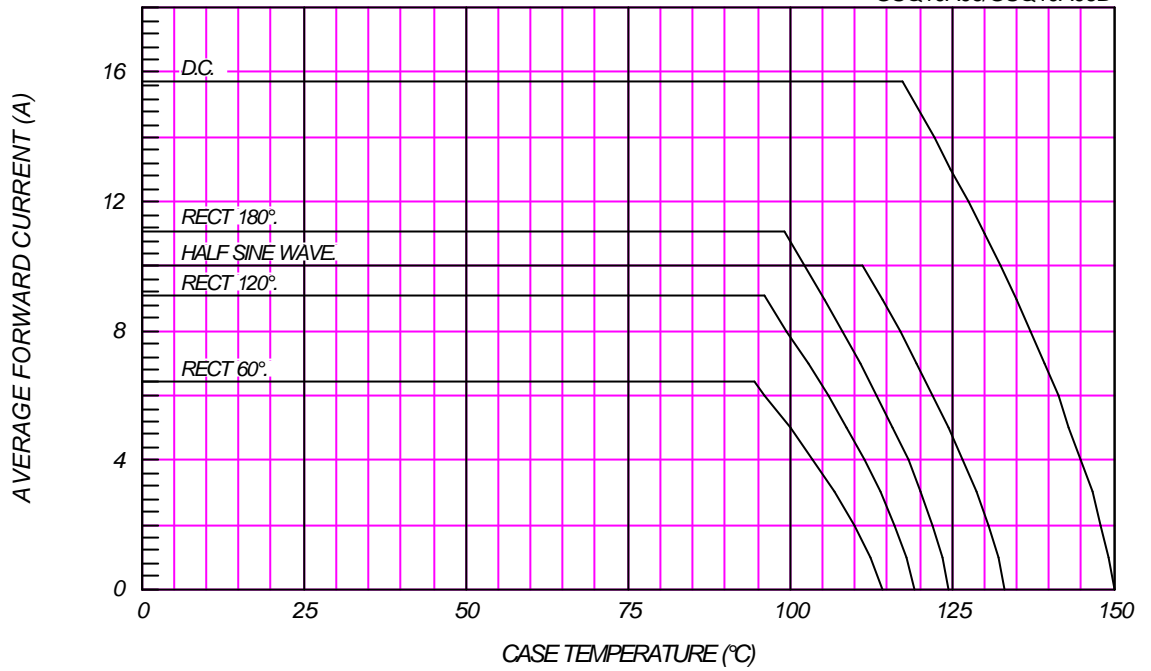




### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=60V$

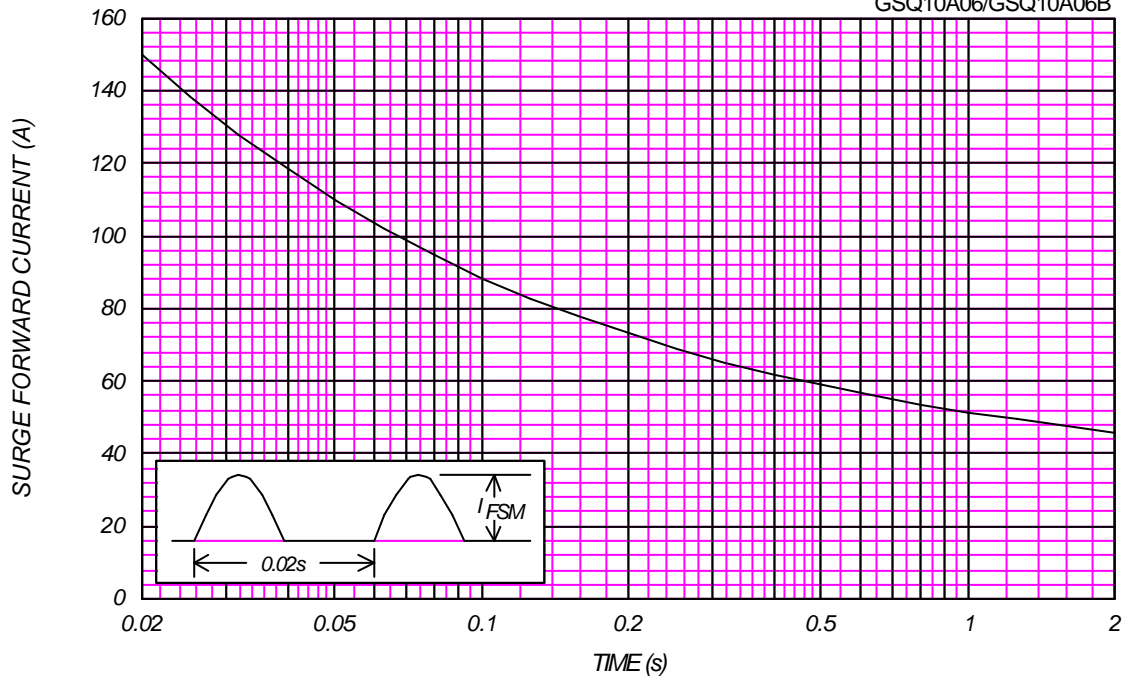
GSQ10A06/GSQ10A06B



### SURGE CURRENT RATINGS

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

GSQ10A06/GSQ10A06B



### JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

GSQ10A06/GSQ10A06B

