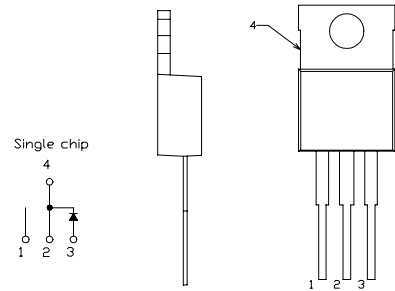


# SBD Type : GSQ10A04B

OUTLINE DRAWING

**FEATURES**

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



**Maximum Ratings**

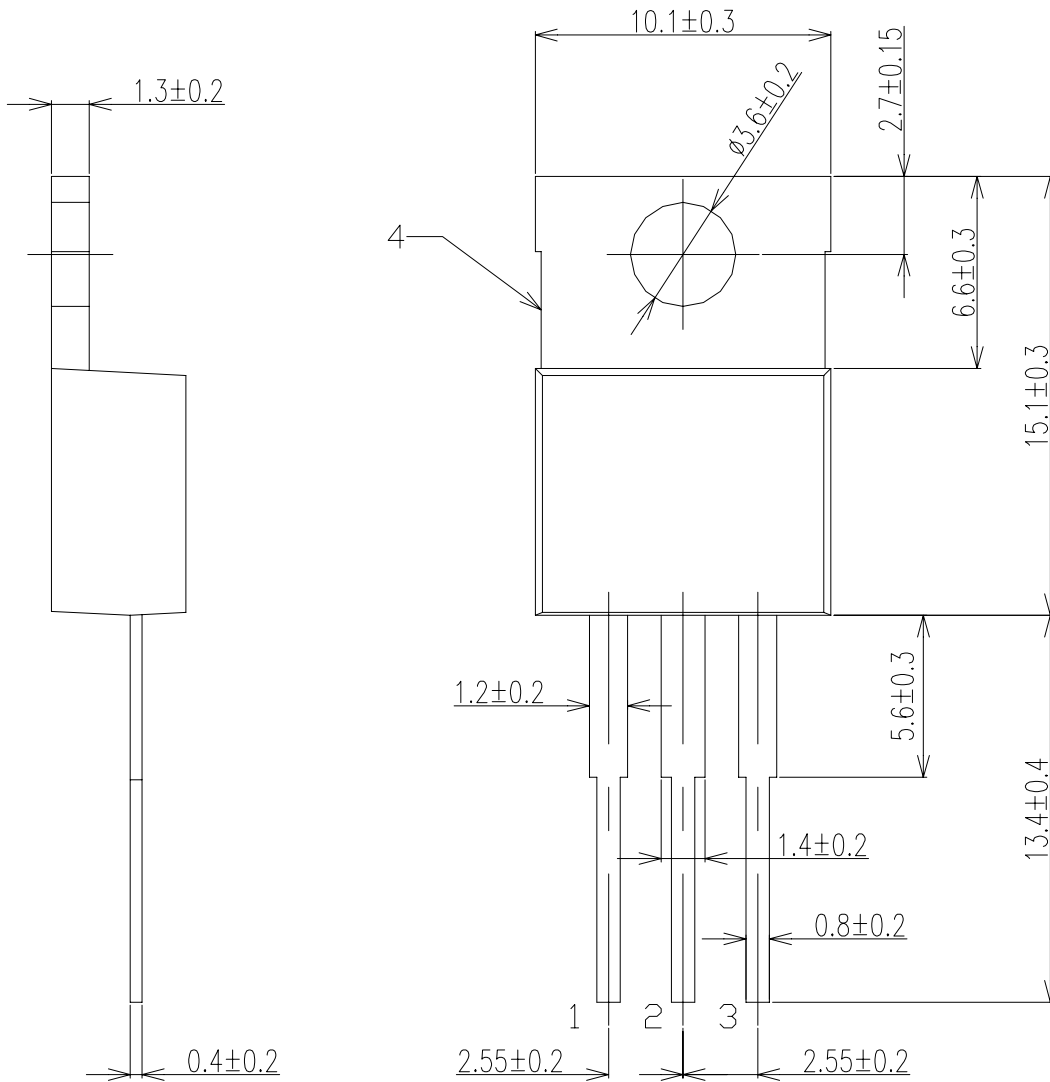
Approx Net Weight: 1.9g

Rating	Symbol	GSQ10A04B		Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	40		V
Non-repetitive Peak Reverse Voltage	$V_{RSM}$	45		V
Average Rectified Output Current	$I_O$	10	$T_c=119^{\circ}C$ 50 Hz half Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	15.7		A
Surge Forward Current	$I_{FSM}$	180	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

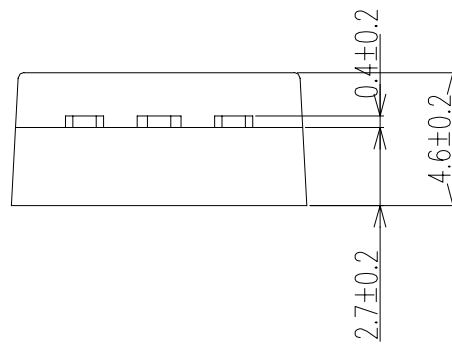
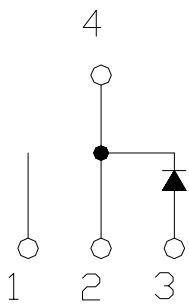
**Electrical • Thermal Characteristics**

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j= 25^{\circ}C, V_{RM}= V_{RRM}$	-	-	10	mA
Peak Forward Voltage	$V_{FM}$	$T_j= 25^{\circ}C, I_{FM}= 10 A$	-	-	0.59	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	3	°C /W

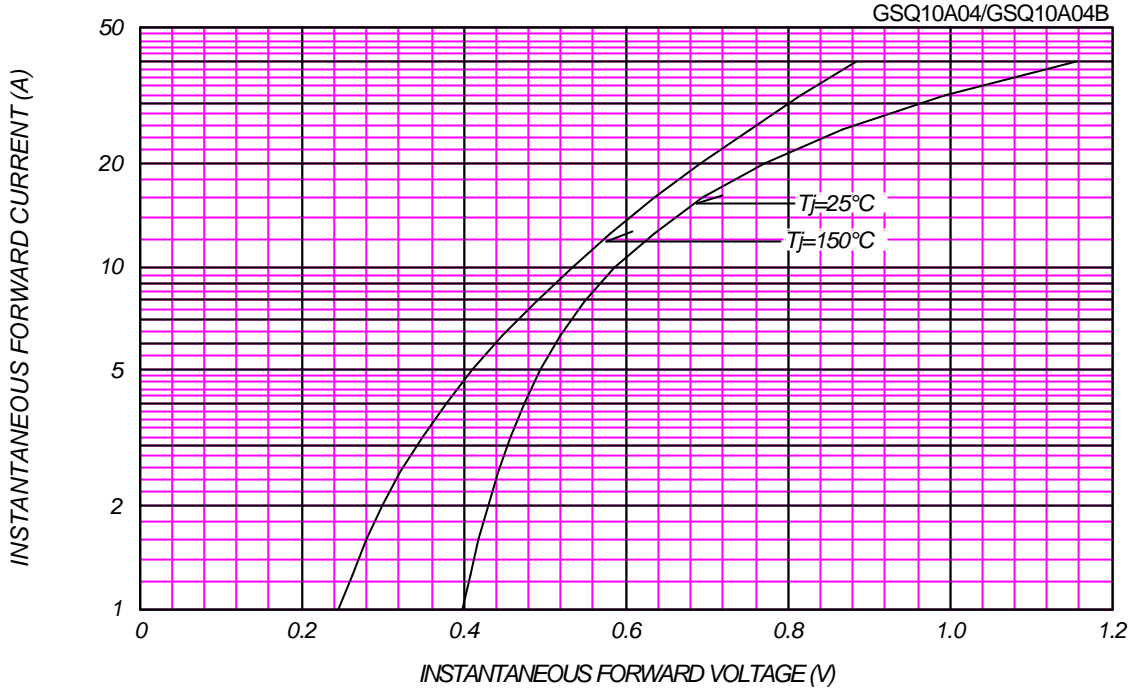
GSQ\_B\_ OUTLINE DRAWING (Dimensions in mm)



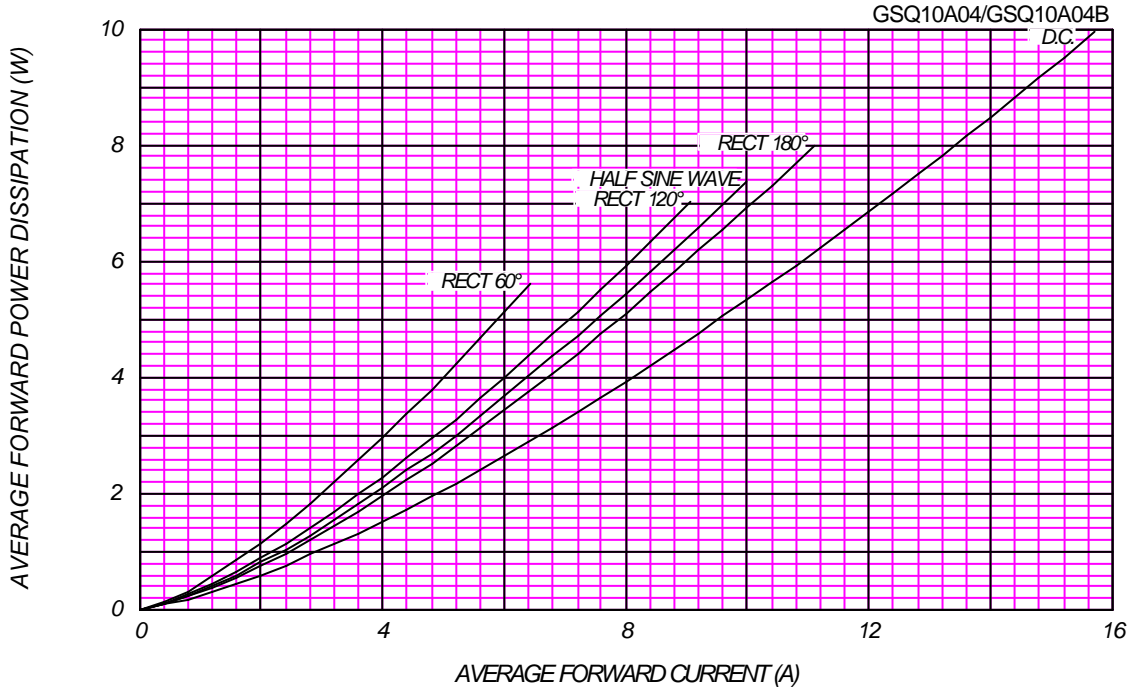
Single chip



FORWARD CURRENT VS. VOLTAGE



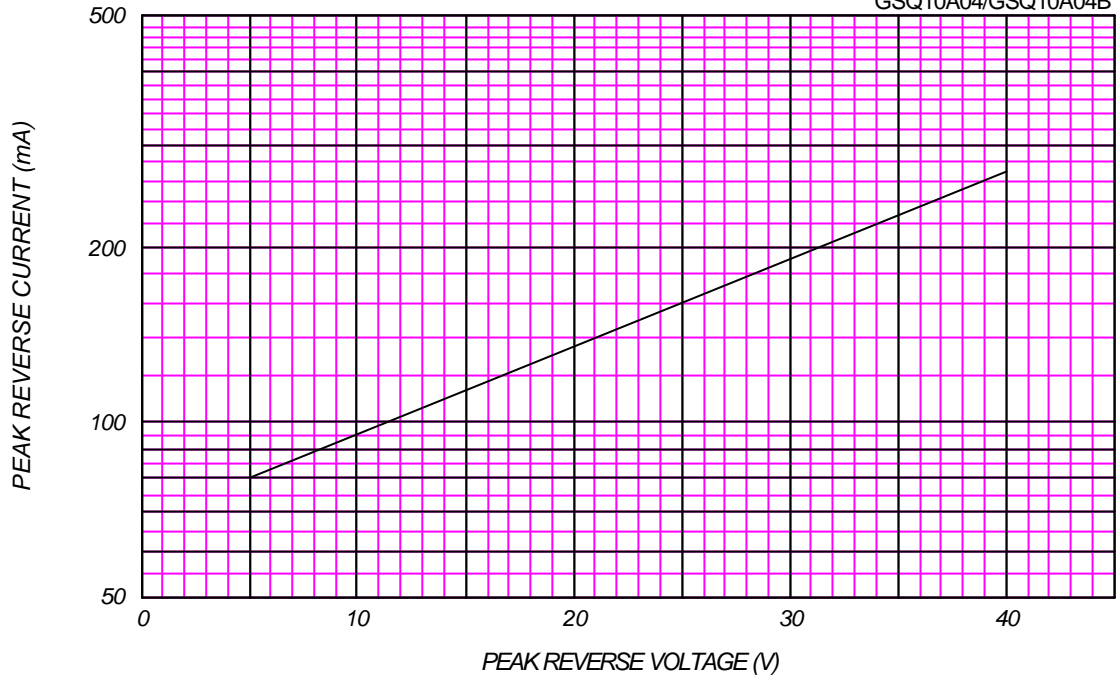
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

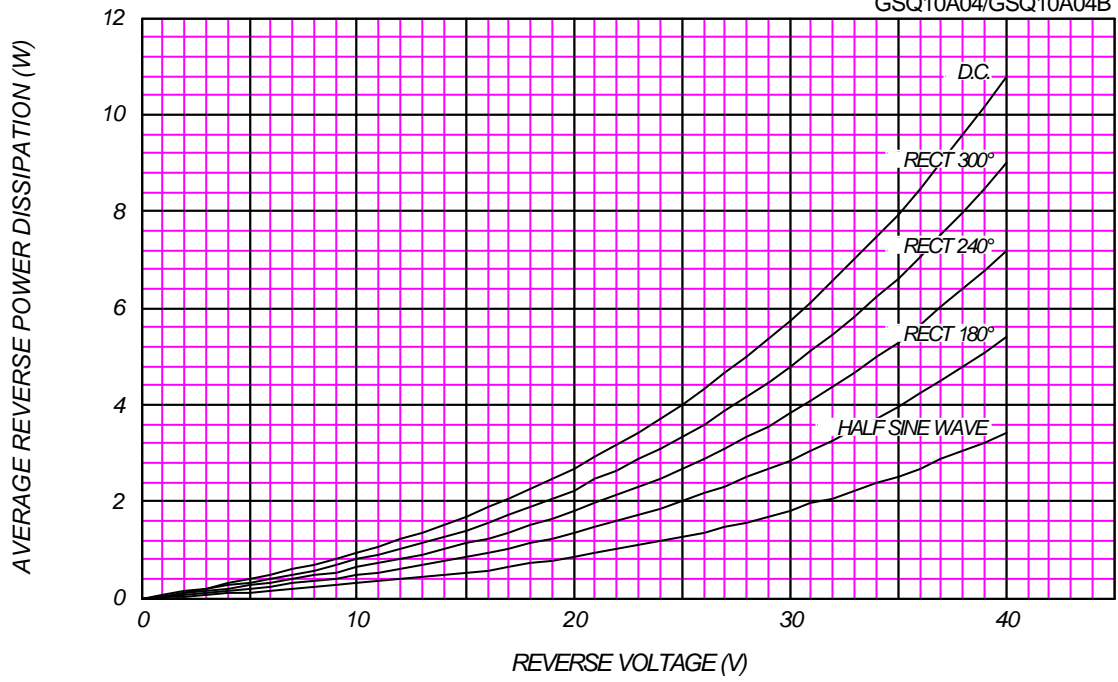
$T_j = 150\text{ }^\circ\text{C}$

GSQ10A04/GSQ10A04B



AVERAGE REVERSE POWER DISSIPATION

GSQ10A04/GSQ10A04B

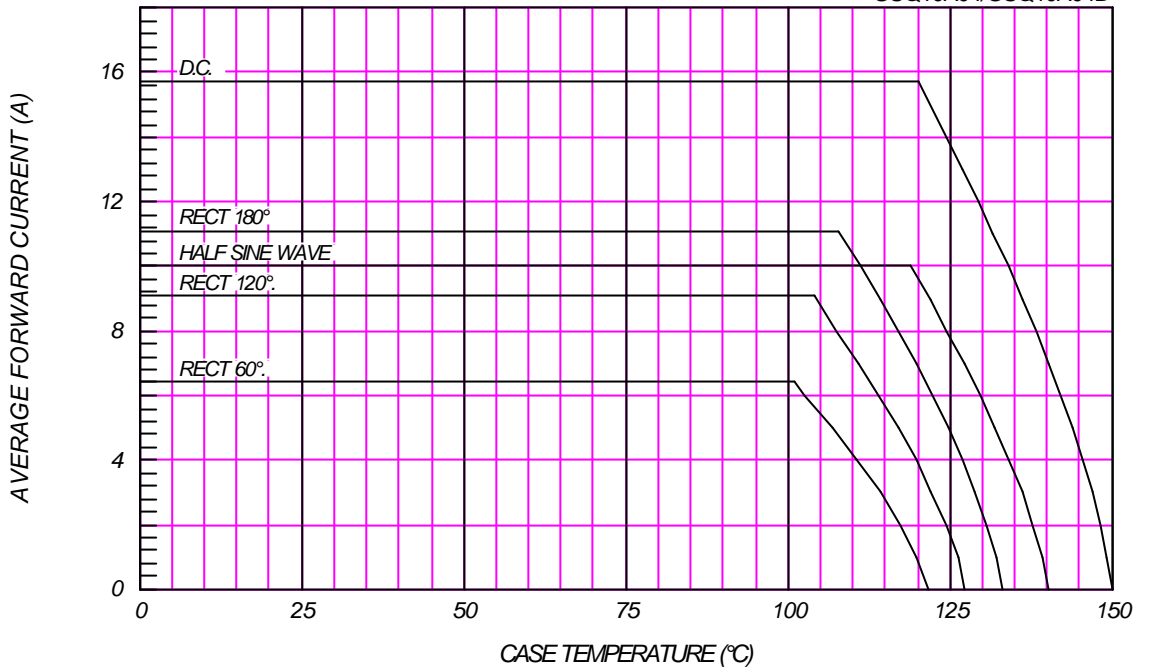




### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=40V$

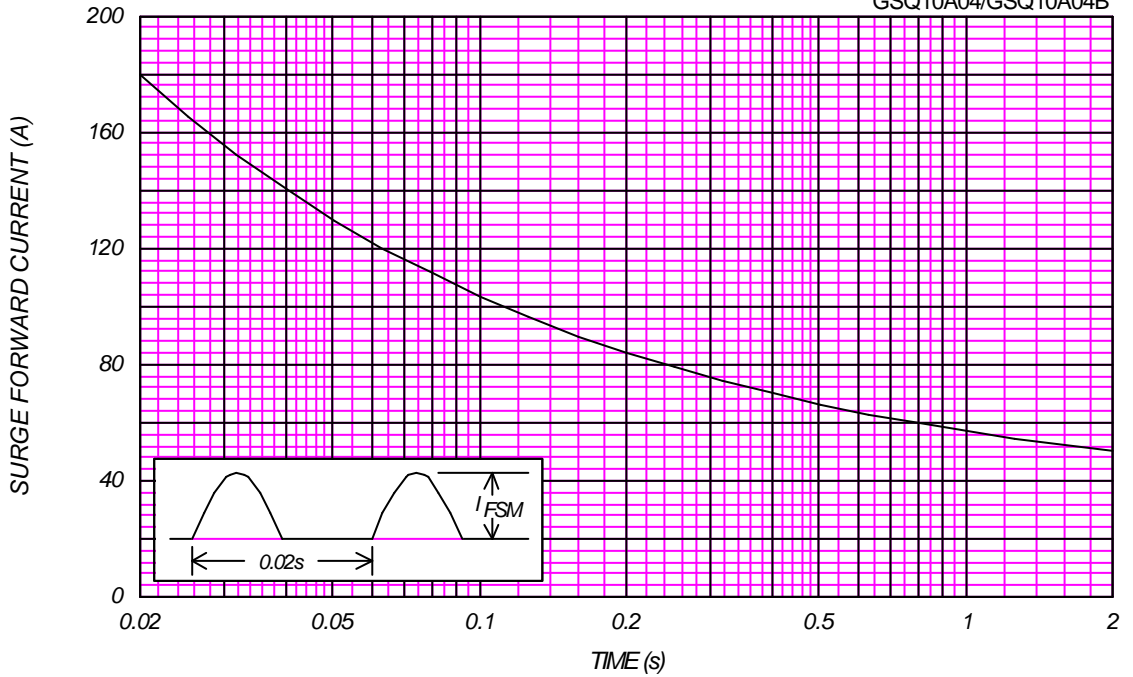
GSQ10A04/GSQ10A04B



### SURGE CURRENT RATINGS

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

GSQ10A04/GSQ10A04B



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

GSQ10A04/GSQ10A04B

