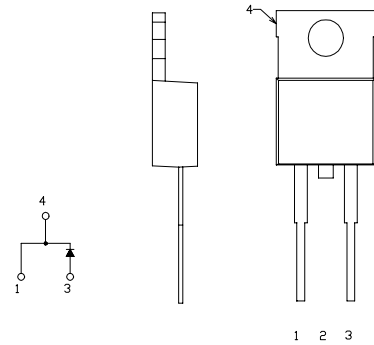


SBD Type : GSQ05A04

OULINE 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

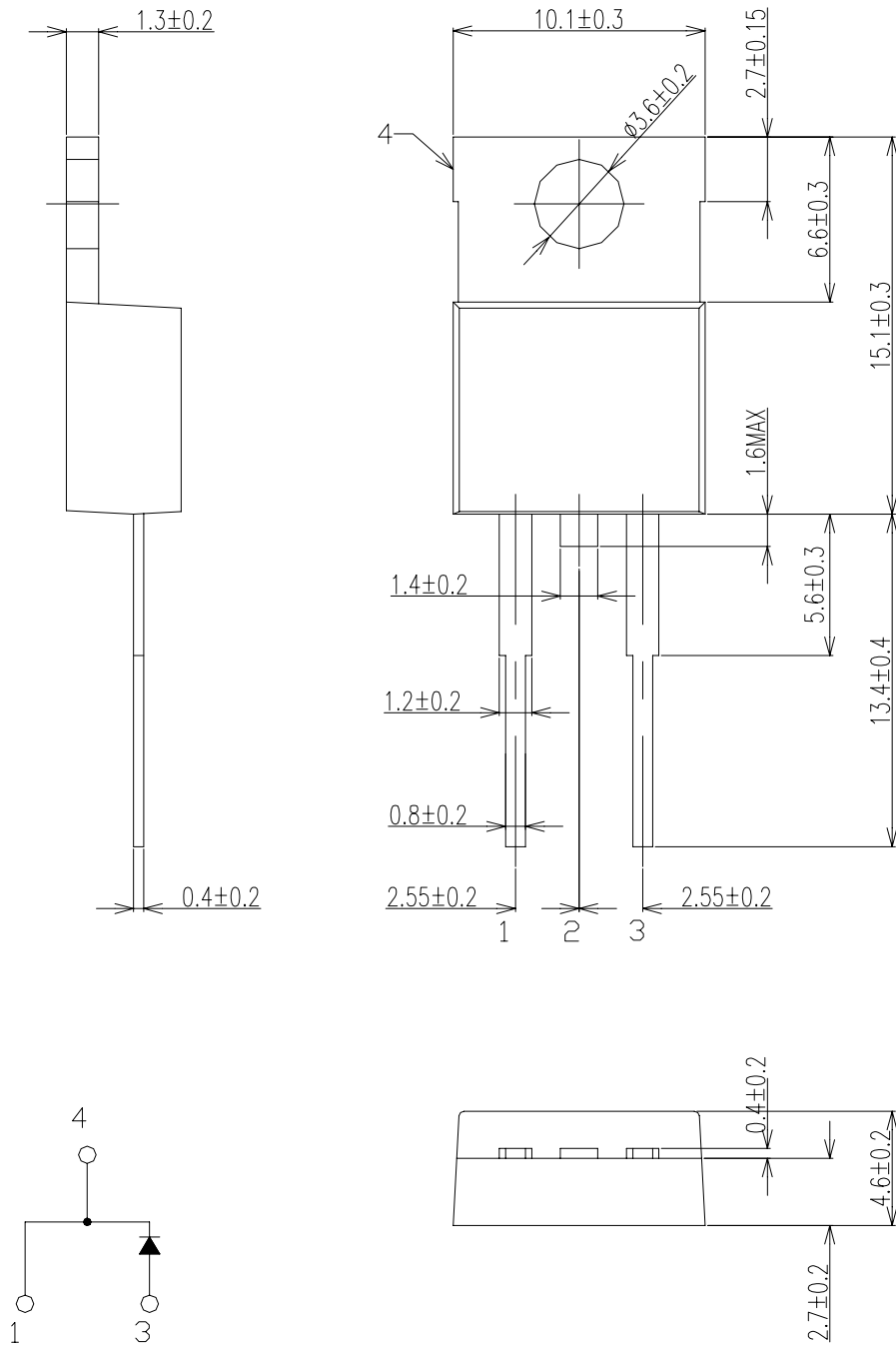
Approx Net Weight: 1.85g

| Rating | Symbol | GSQ05A04 | | Unit |
|-------------------------------------|--------------|--------------------------|--|------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 40 | | 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 |

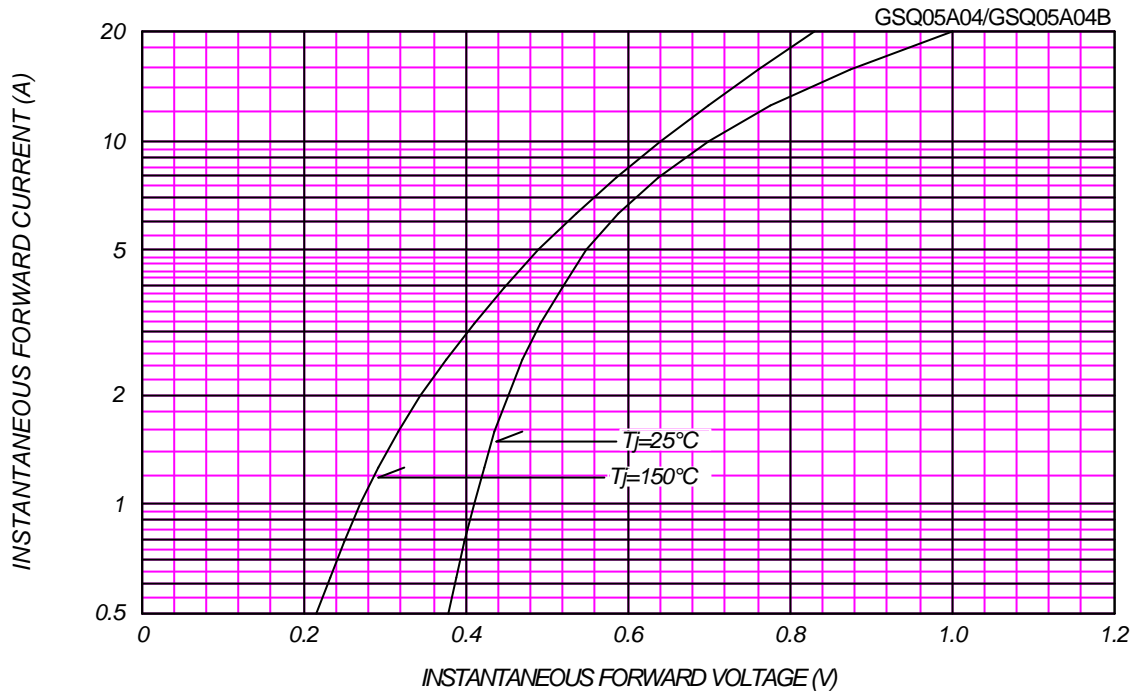
Electrical • Thermal Characteristics

| Characteristics | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|----------------------|---------------|-----------------------------|------|------|------|------|
| Peak Reverse Current | I_{RM} | Tj= 25°C, $V_{RM}= V_{RRM}$ | - | - | 5 | mA |
| Peak Forward Voltage | V_{FM} | Tj= 25°C, $I_{FM}= 5 A$ | - | - | 0.55 | V |
| Thermal Resistance | $R_{th(j-c)}$ | Junction to Case | - | - | 5 | °C/W |

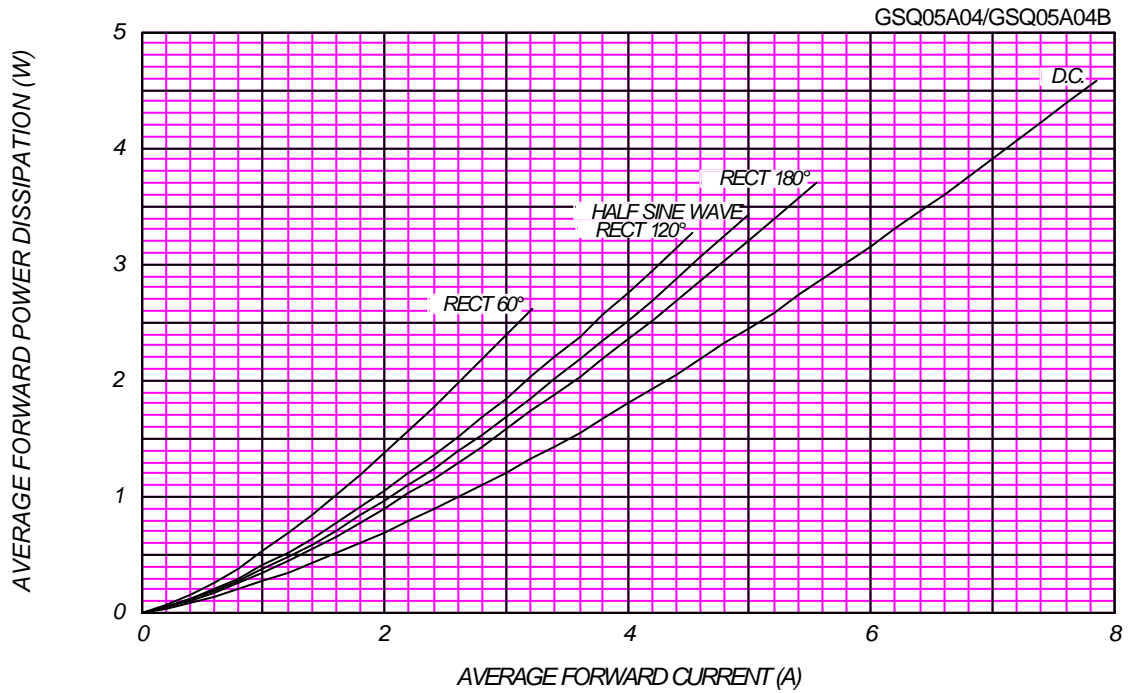
GSQ_A_OUTLINE DRAWING (Dimensions in mm)



FORWARD CURRENT VS. VOLTAGE



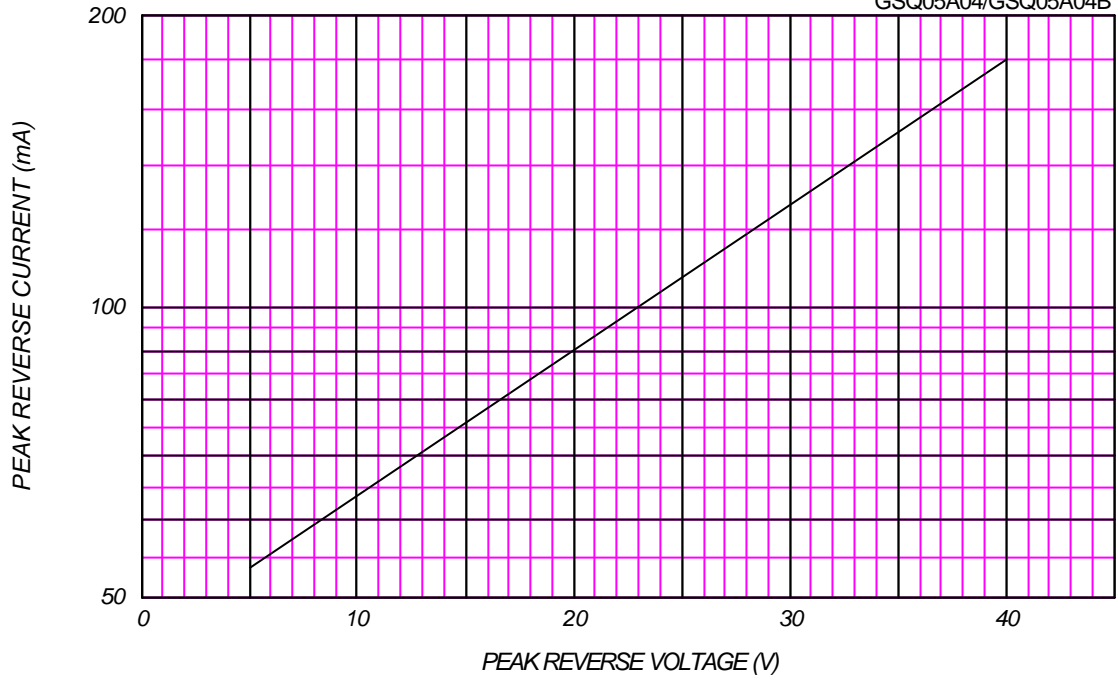
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

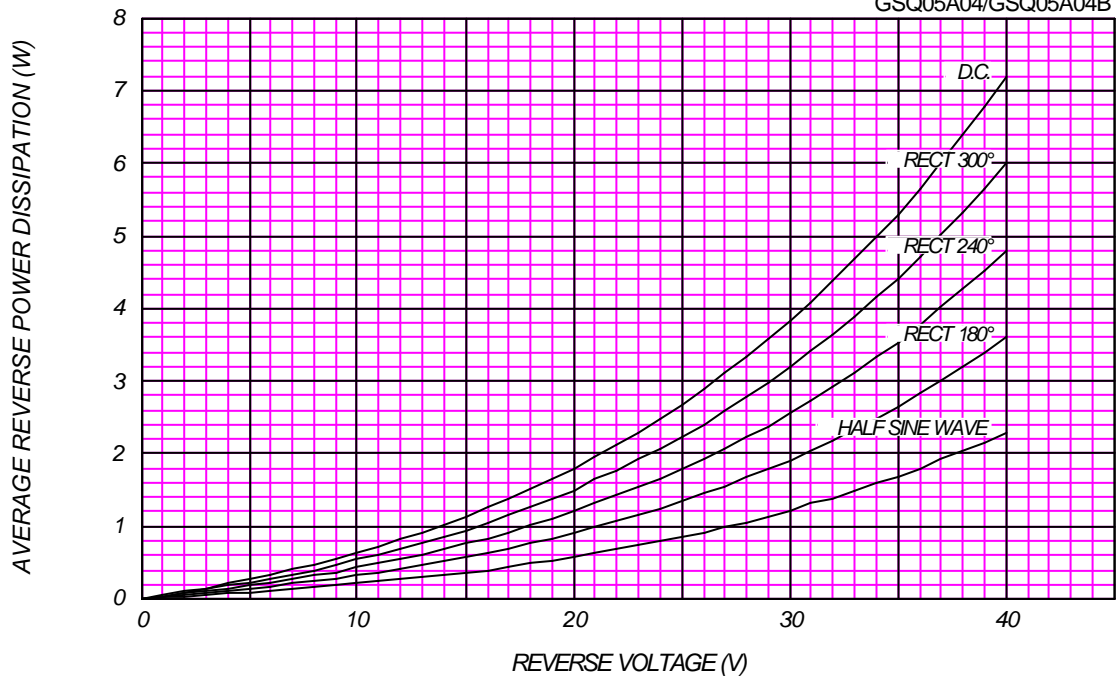
$T_j = 150^\circ\text{C}$

GSQ05A04/GSQ05A04B



AVERAGE REVERSE POWER DISSIPATION

GSQ05A04/GSQ05A04B

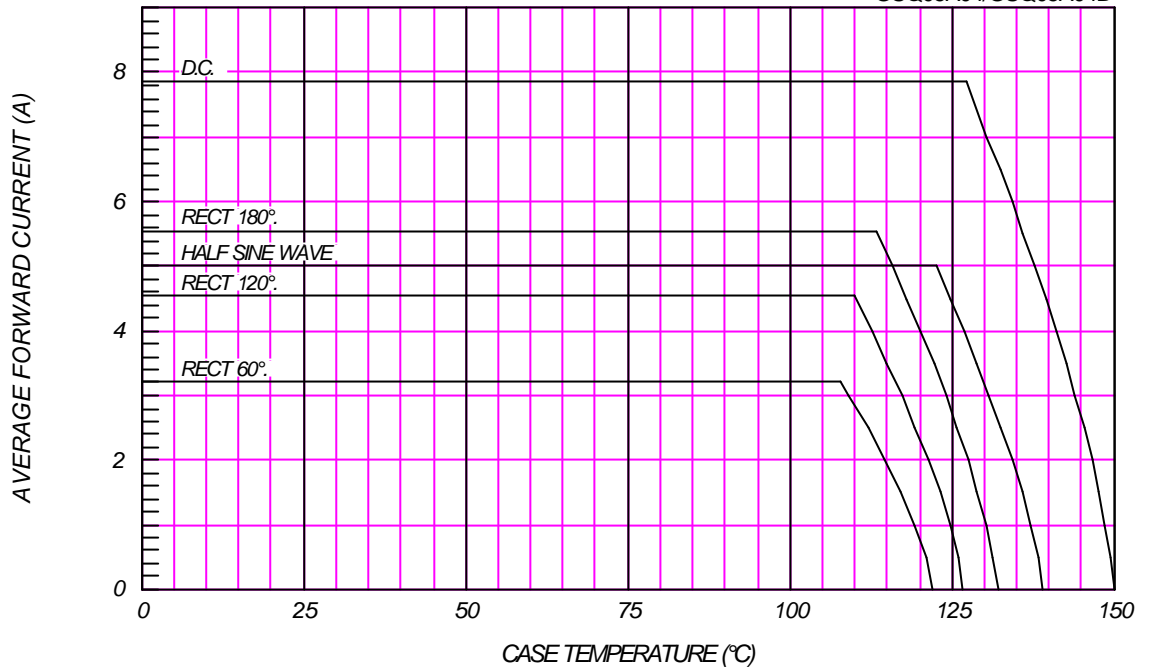




AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=40V$

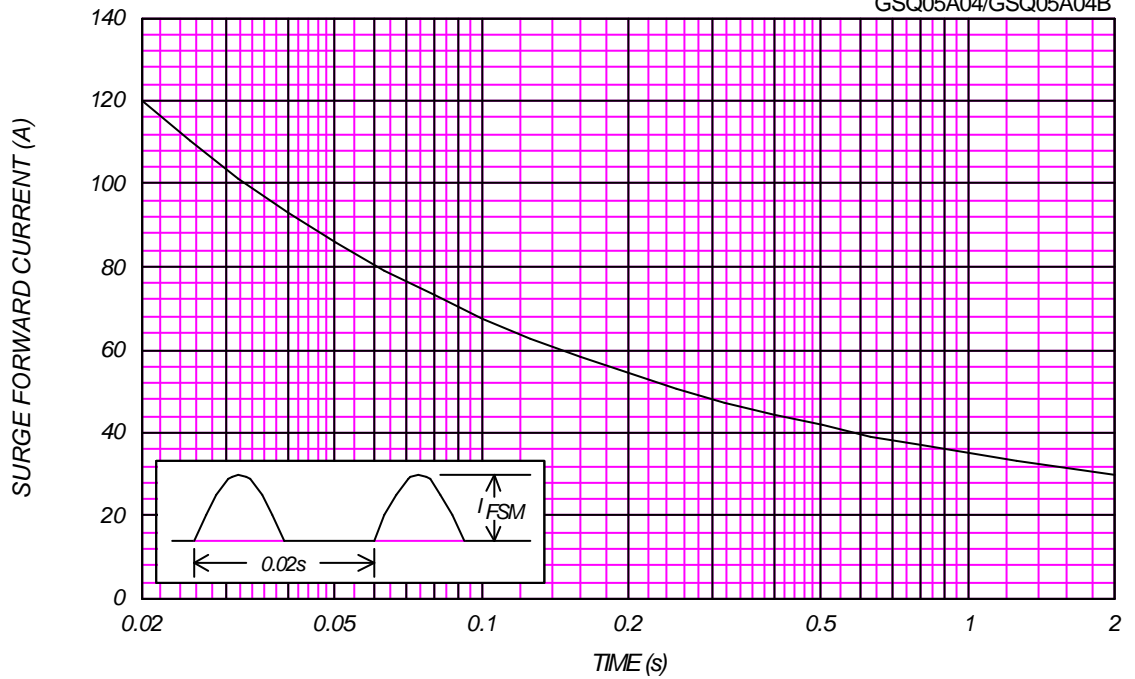
GSQ05A04/GSQ05A04B



SURGE CURRENT RATINGS

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

GSQ05A04/GSQ05A04B



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

GSQ05A04/GSQ05A04B

