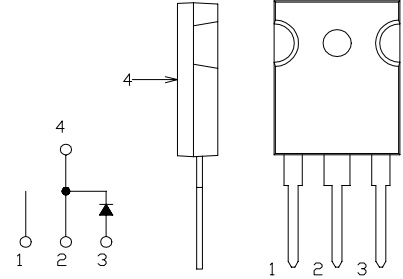


# SBD Type : KSQ15A04B

OUTLINE DRAWING

### FEATURES

- \* Similar to TO-247AC(TO-3P)Case
- \* Low Forward Voltage Drop
- \* Low Power Loss,High Efficiency
- \* High Surge Current Capability
- \* 40 Volts thru 60 Volts Types Available



### Maximum Ratings

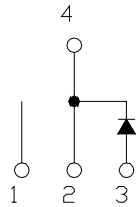
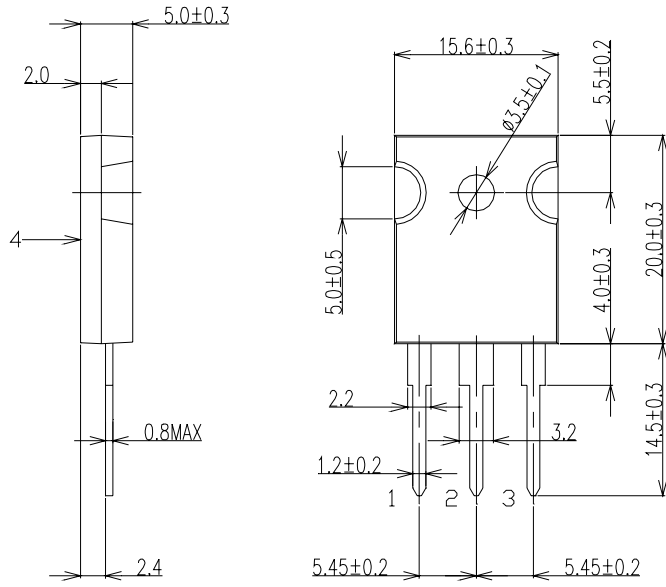
Approx Net Weight: 5.55g

| Rating                              | Symbol       | KSQ15A04B                |  |                                     | Unit        |
|-------------------------------------|--------------|--------------------------|--|-------------------------------------|-------------|
| Repetitive Peak Reverse Voltage     | $V_{RRM}$    | 40                       |  |                                     | V           |
| Non-repetitive Peak Reverse Voltage | $V_{RSM}$    | 45                       |  |                                     | V           |
| Average Rectified Output Current    | $I_O$        | 15                       | $T_c=120^{\circ}C$                         | 50 Hz half Sine Wave Resistive Load | A           |
| RMS Forward Current                 | $I_{F(RMS)}$ | 23.5                     |  |                                     | A           |
| Surge Forward Current               | $I_{FSM}$    | 250                      | 50Hz Half Sine Wave ,1cycle Non-repetitive |                                     | A           |
| Operating JunctionTemperature Range | $T_{jw}$     | -40 to +150              |  |                                     | $^{\circ}C$ |
| Storage Temperature Range           | $T_{stg}$    | -40 to +150              |  |                                     | $^{\circ}C$ |
| Mounting torque                     | Ftor         | recommended torque = 0.5 |  |                                     | N•m         |

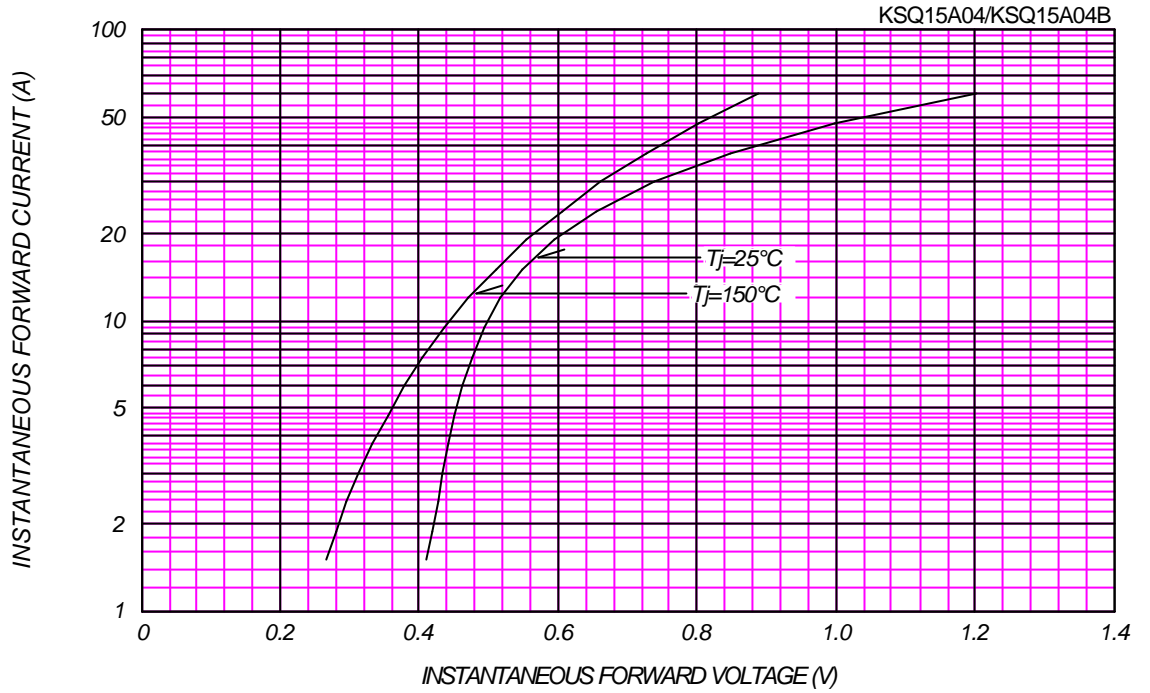
### Electrical • Thermal Characteristics

| Characteristics                       | Symbol        | Conditions                          | Min. | Typ. | Max. | Unit          |
|---------------------------------------|---------------|-------------------------------------|------|------|------|---------------|
| Peak Reverse Current                  | $I_{RM}$      | $T_j= 25^{\circ}C, V_{RM}= V_{RRM}$ | -    | -    | 15   | mA            |
| Peak Forward Voltage                  | $V_{FM}$      | $T_j= 25^{\circ}C, I_{FM}= 15 A$    | -    | -    | 0.55 | V             |
| Thermal Resistance   Junction to Case | $R_{th(j-c)}$ | Junction to Case                    | -    | -    | 2.0  | $^{\circ}C/W$ |

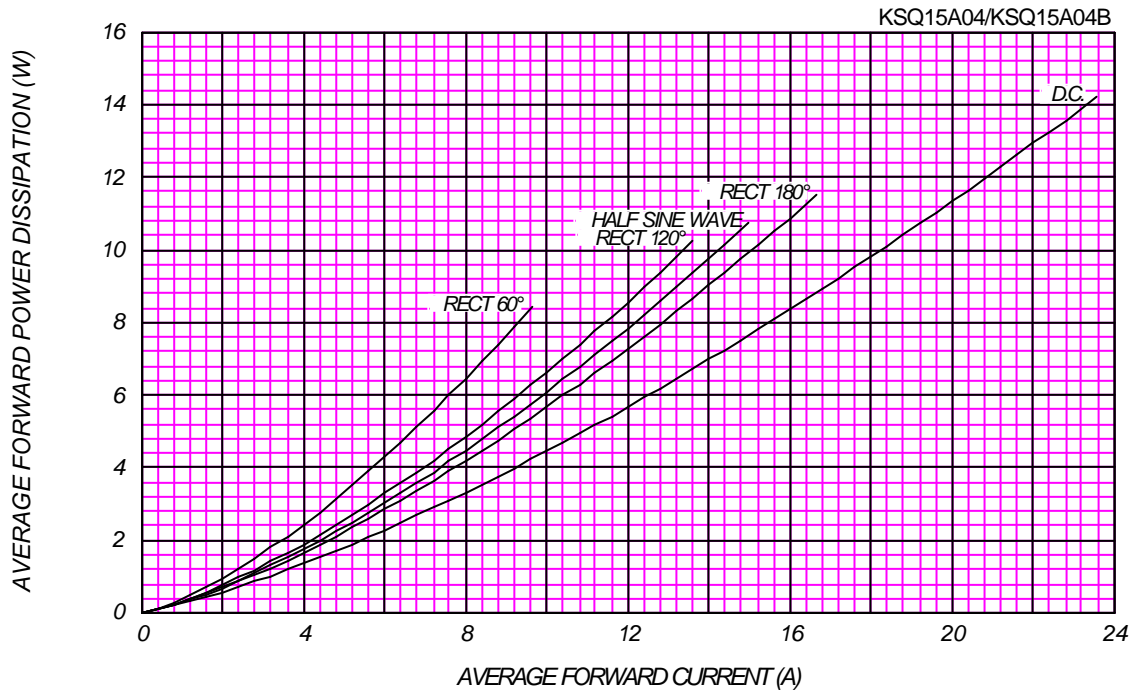
KSQ15A04B OUTLINE DRAWING (Dimension in mm)



### FORWARD CURRENT VS. VOLTAGE



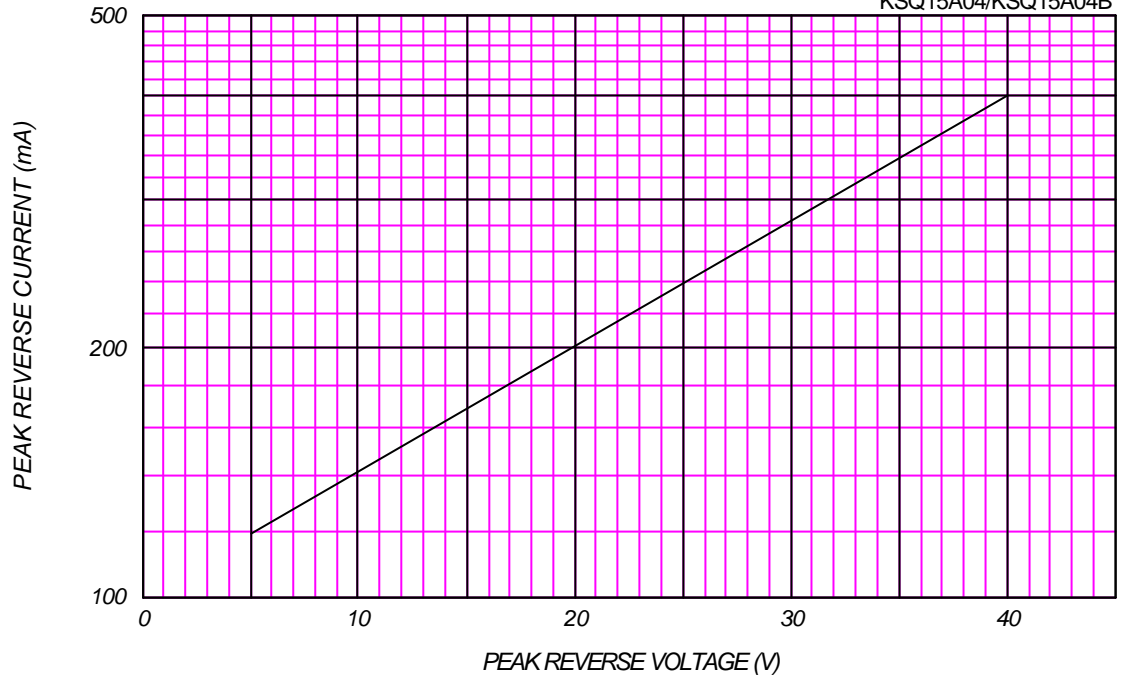
### AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

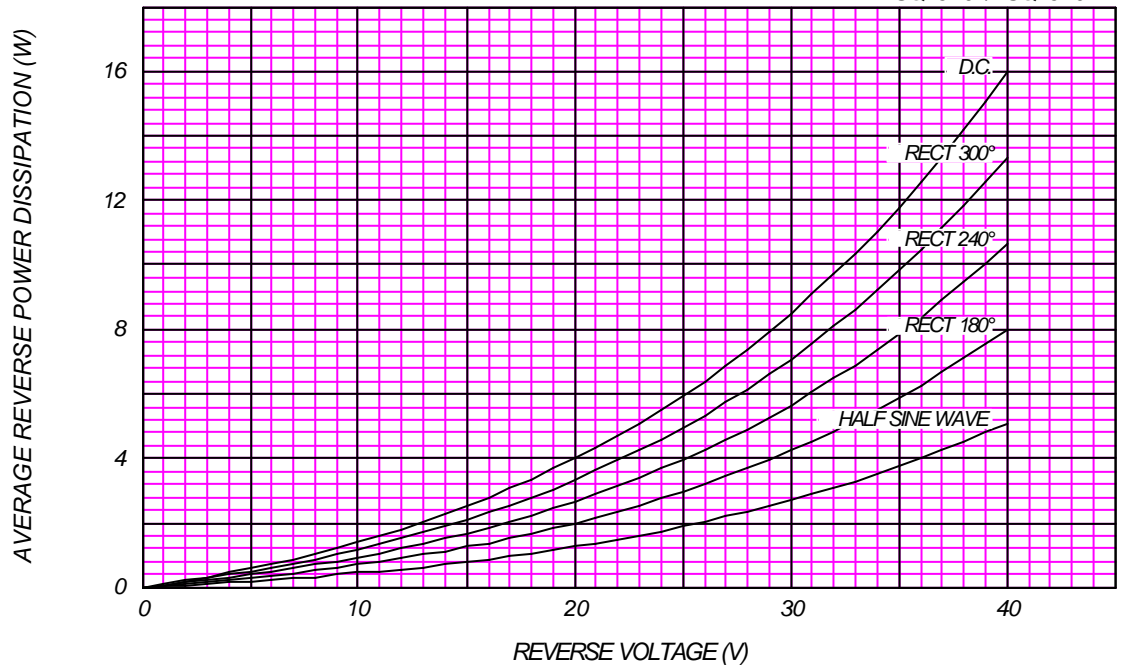
$T_j = 150\text{ }^\circ\text{C}$

KSQ15A04/KSQ15A04B



AVERAGE REVERSE POWER DISSIPATION

KSQ15A04/KSQ15A04B

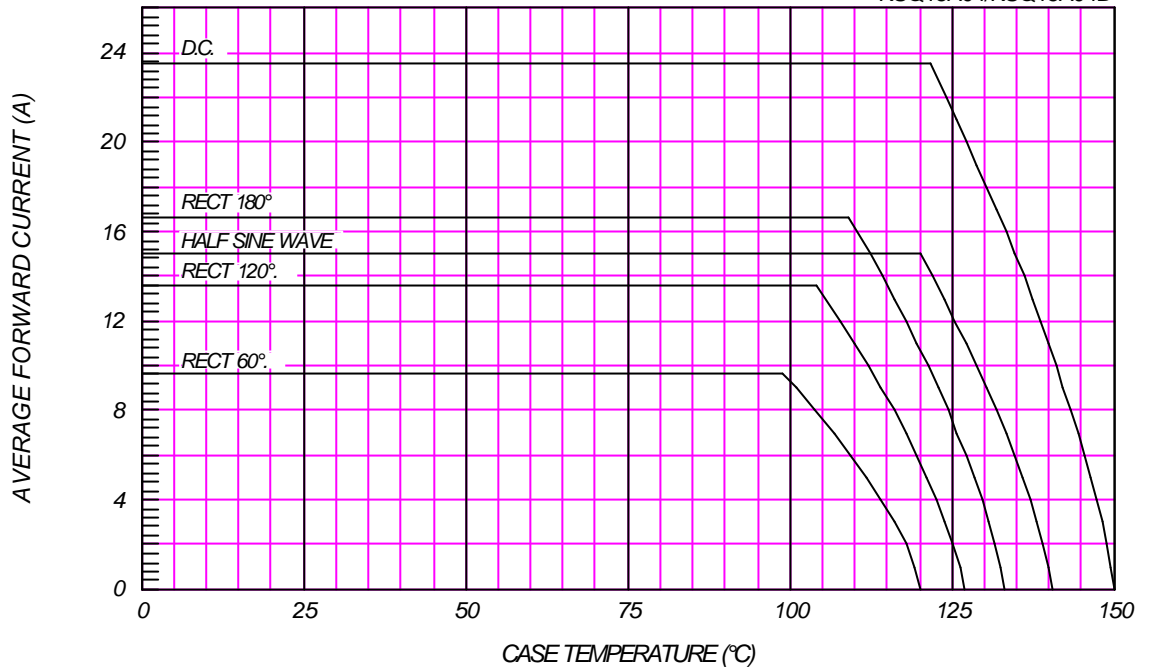




### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=40V$

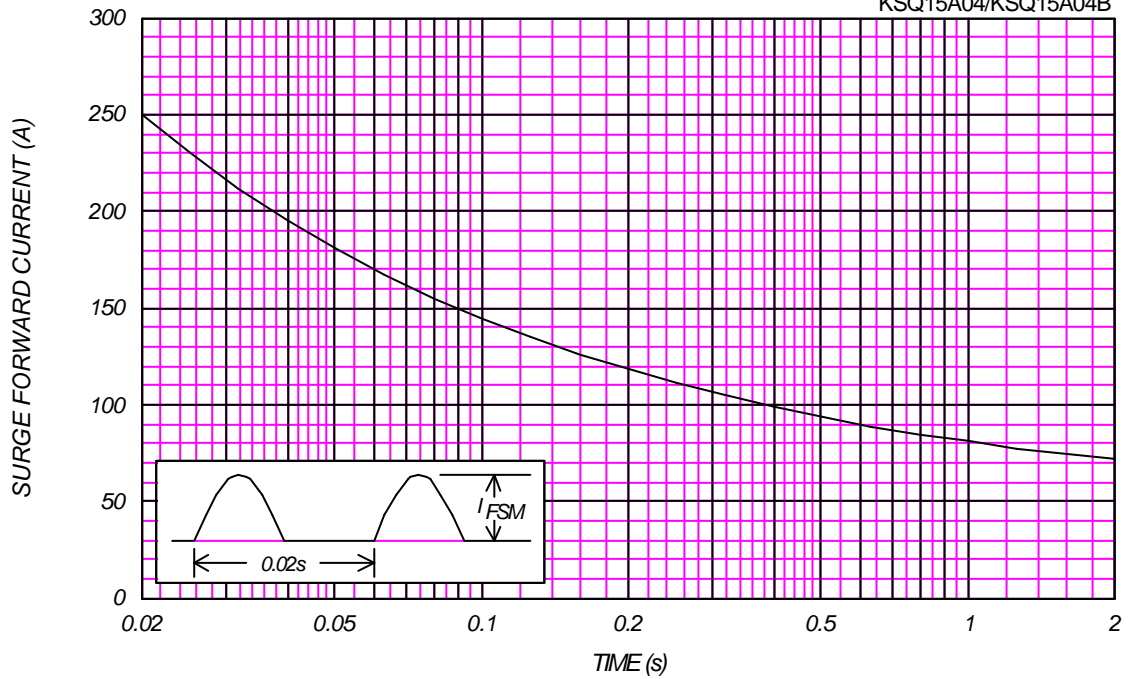
KSQ15A04/KSQ15A04B



### SURGE CURRENT RATINGS

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

KSQ15A04/KSQ15A04B



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

KSQ15A04/KSQ15A04B

