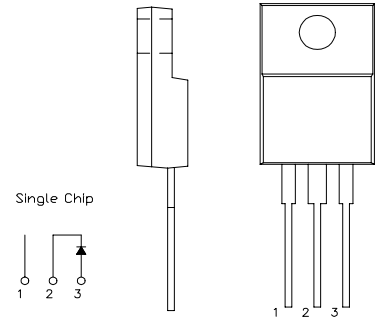


# SBD Type : FSQ05A04B

OUTLINE DRAWING

**FEATURES**

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



## Maximum Ratings

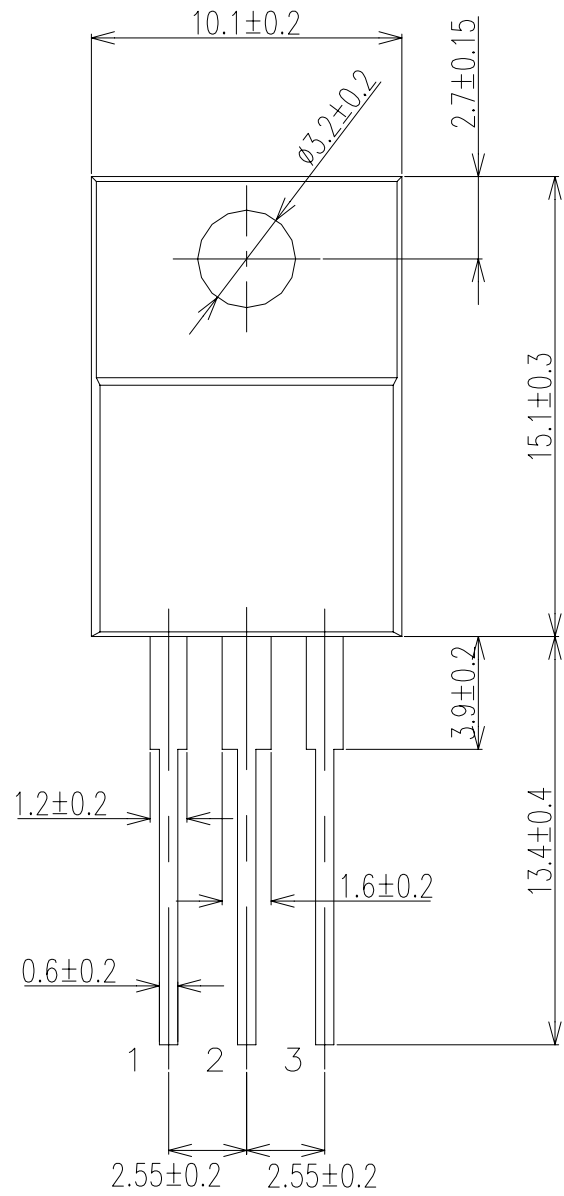
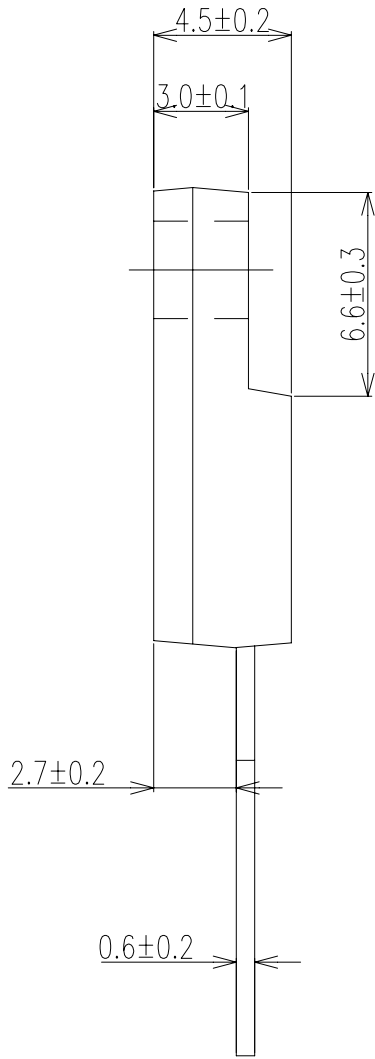
Approx Net Weight: 1.75g

Rating	Symbol	FSQ05A04B		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

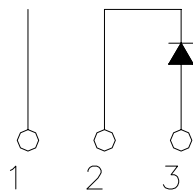
## Electrical • Thermal Characteristics

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
	$R_{th(c-f)}$	Cace to Fin	-	-	1.5	°C/W

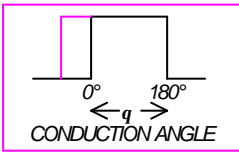
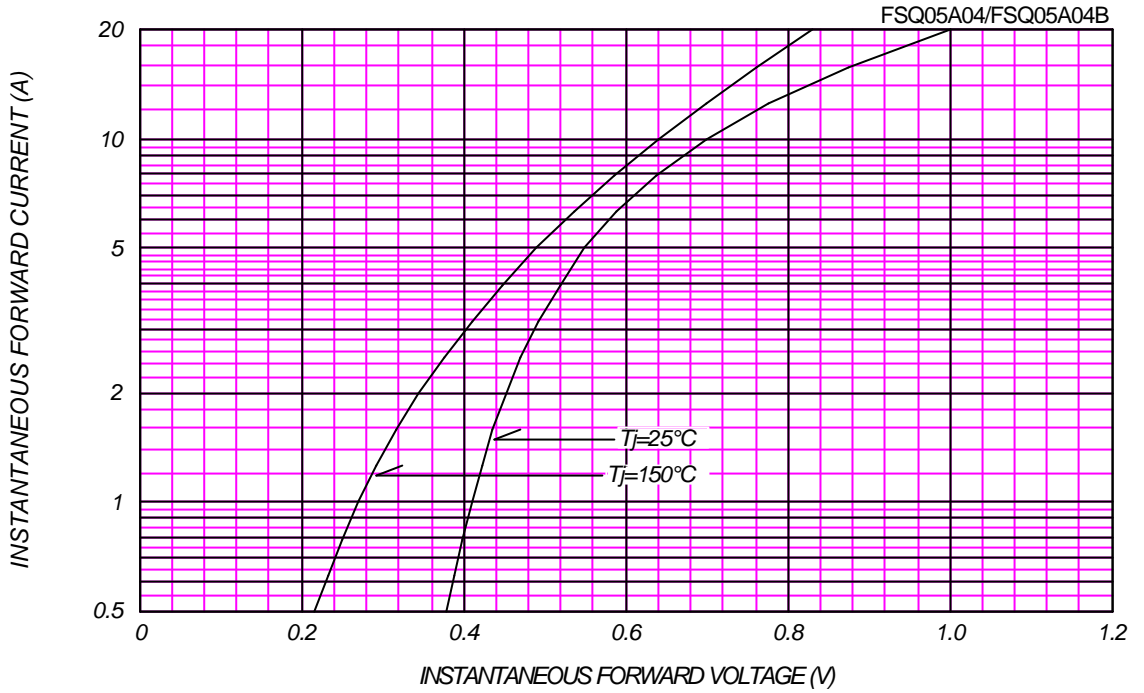
FSQ\_A\_B OUTLINE DRAWING (Dimensions in mm)



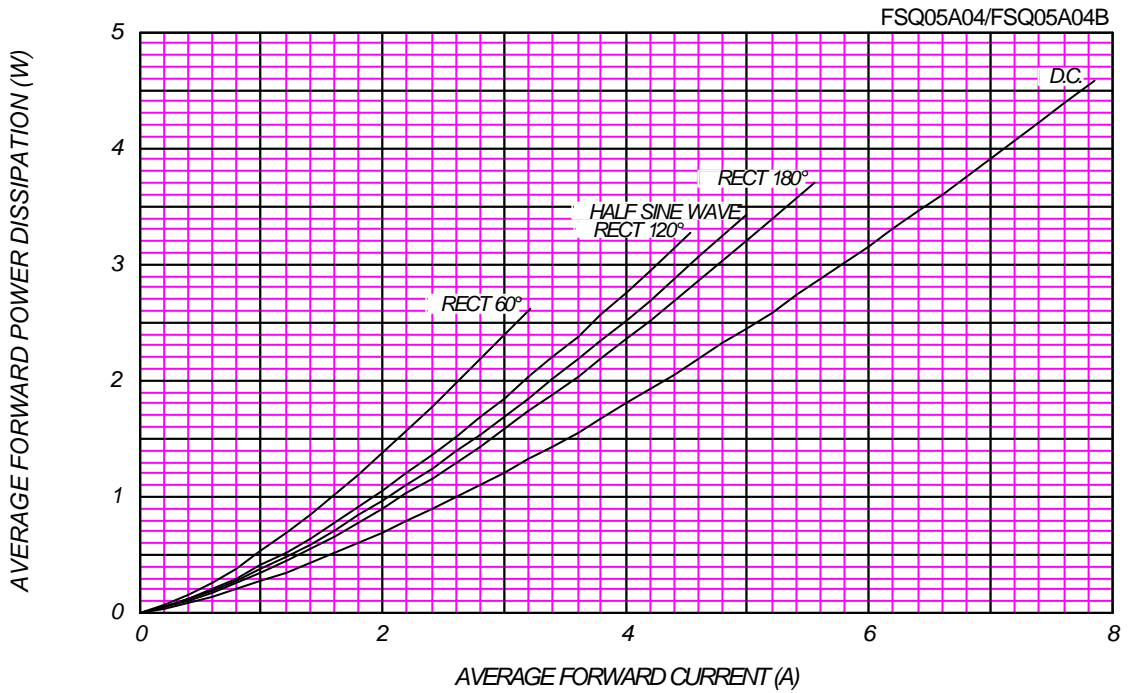
Single Chip



FORWARD CURRENT VS. VOLTAGE



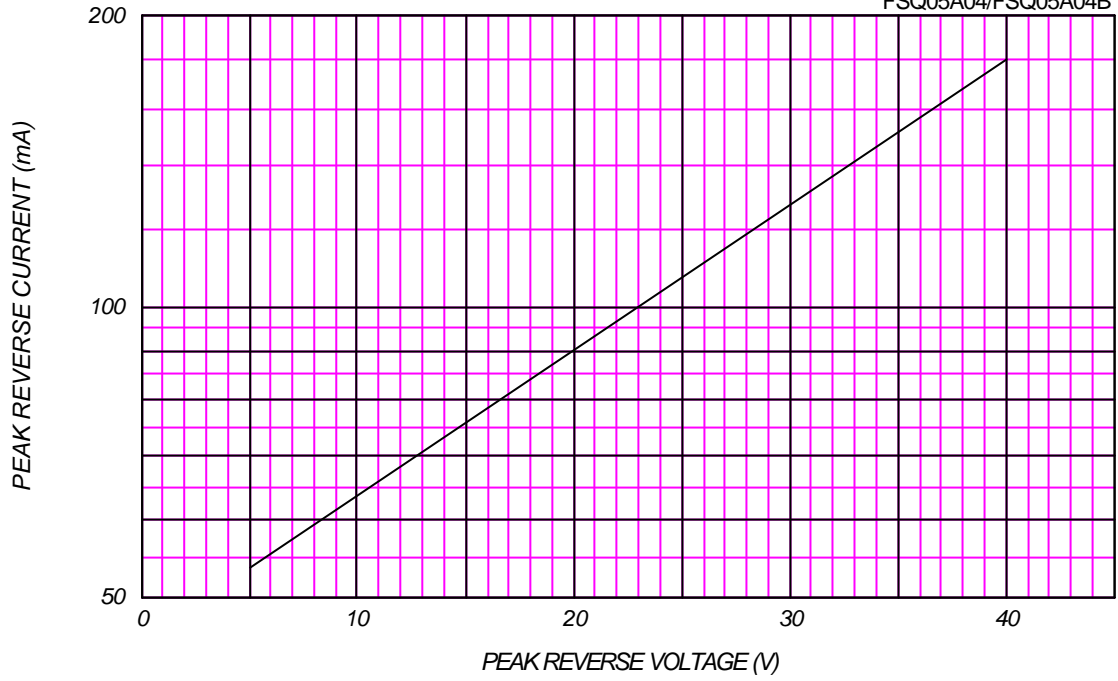
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

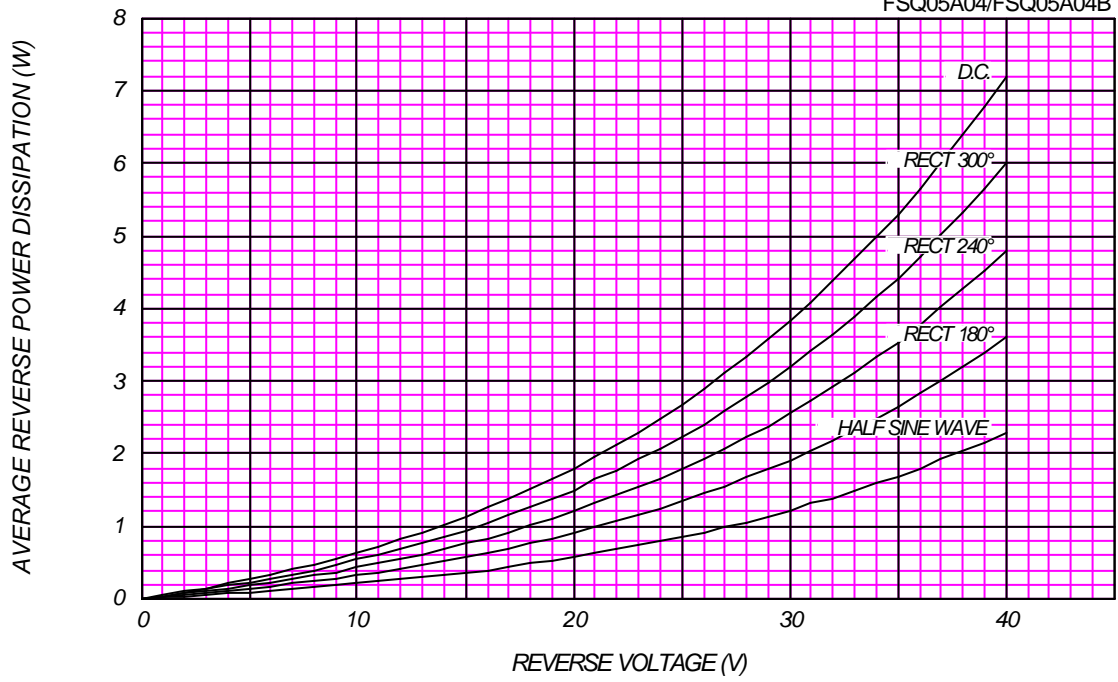
$T_j = 150\text{ }^\circ\text{C}$

F5Q05A04/F5Q05A04B



AVERAGE REVERSE POWER DISSIPATION

F5Q05A04/F5Q05A04B

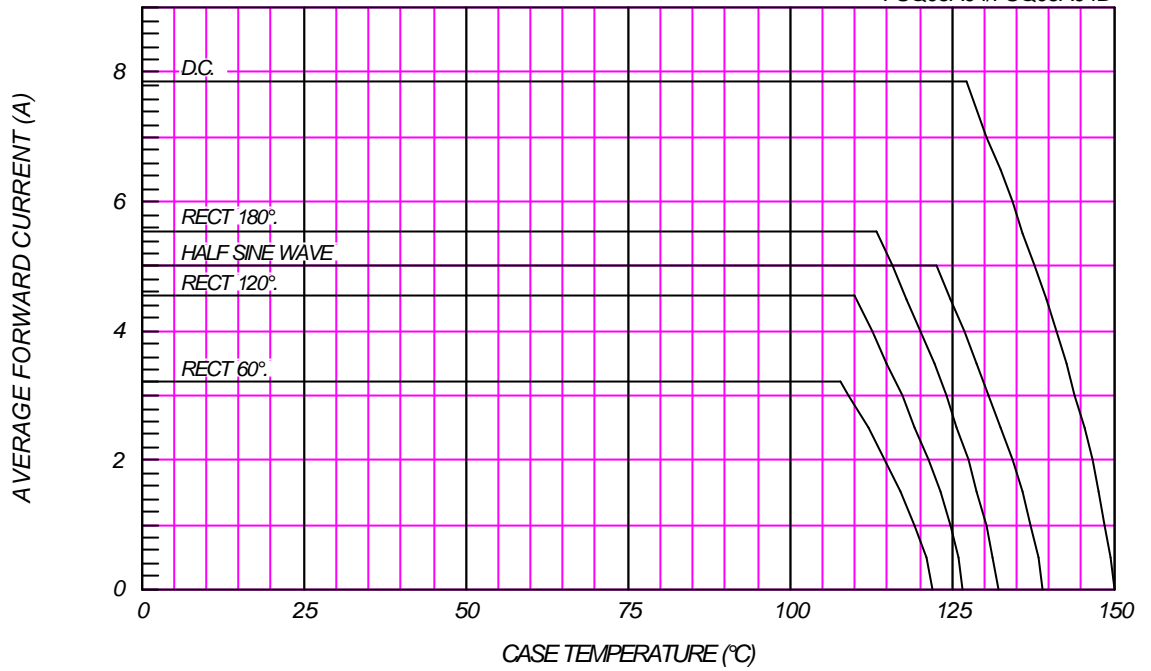




### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=40V$

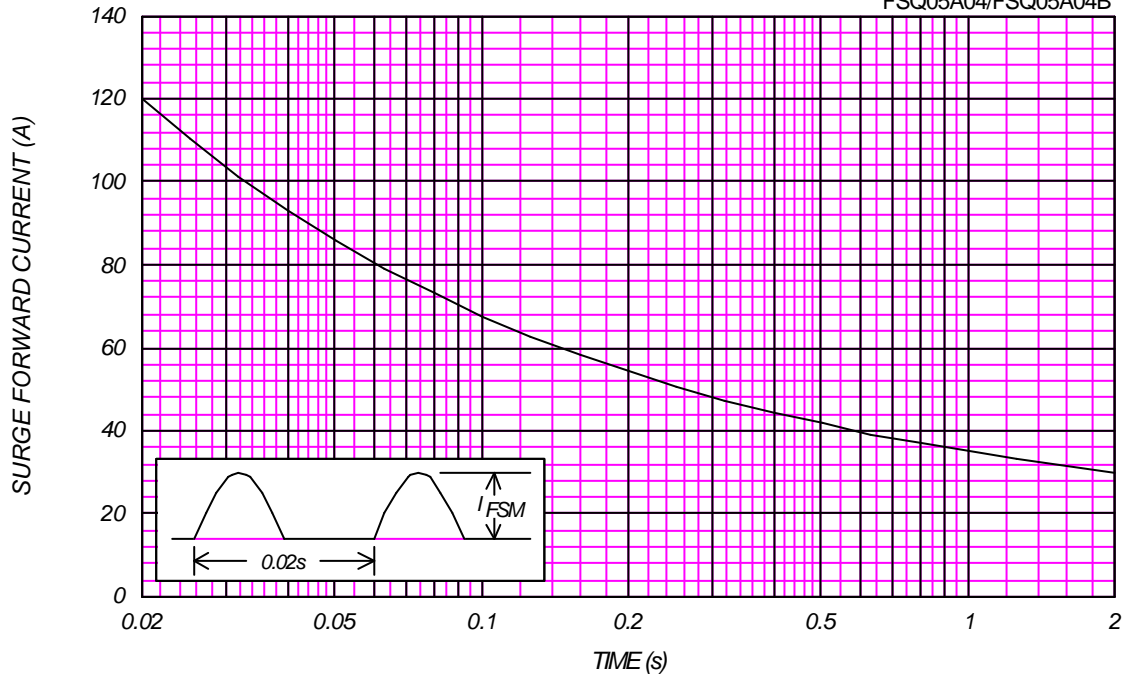
FSQ05A04/FSQ05A04B



### SURGE CURRENT RATINGS

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

FSQ05A04/FSQ05A04B



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

FSQ05A04/FSQ05A04B

