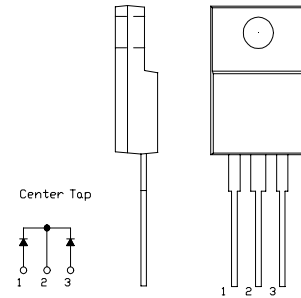


# SBD Type : FCL30A015

## OUTLINE DRAWING

### FEATURES

- \*TO-220AB Case
- \*Fully Molded
- \*Dual Diodes – Cathode Common
- \*Extremely Low Forward Voltage Drop
- \*Oring Diode
- \*High Surge Capability



## Maximum Ratings

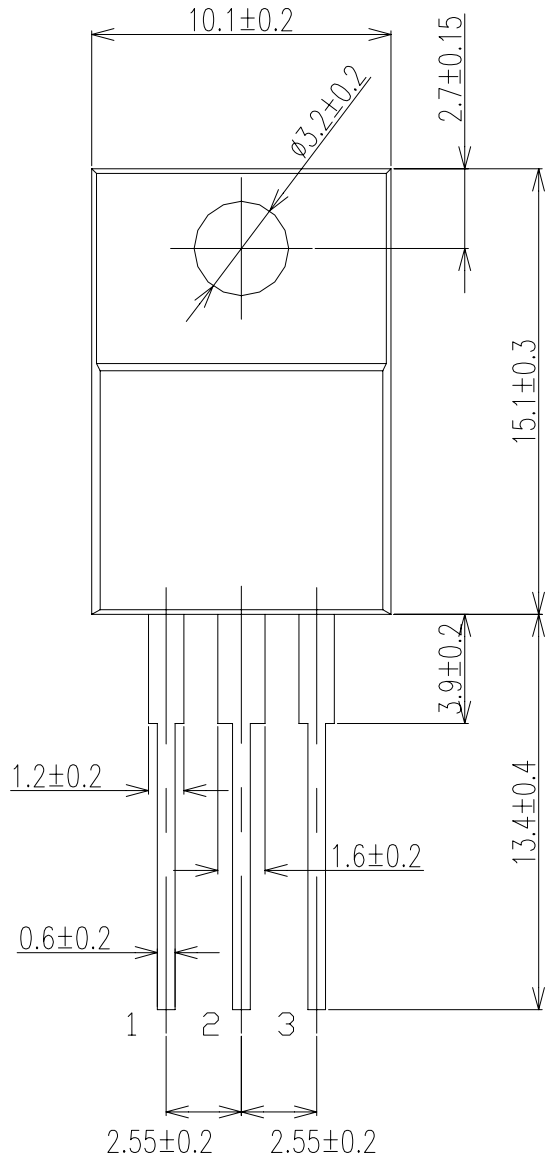
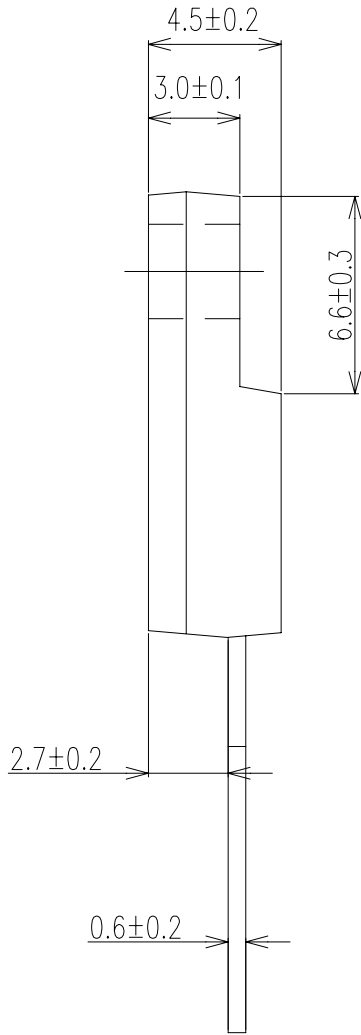
Approx Net Weight: 1.75g

Rating	Symbol	FCL30A015			Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	15			V
Average Rectified Output Current	I <sub>O</sub>	30	T <sub>c</sub> =78°C	50 Hz Full Sine Wave Resistive Load	A
RMS Forward Current	I <sub>F(RMS)</sub>	33.3			A
Surge Forward Current	I <sub>FSM</sub>	250	50Hz Full Sine Wave ,1cycle Non-repetitive		A
Operating JunctionTemperature Range	T <sub>jw</sub>	-40 to +125			°C
Storage Temperature Range	T <sub>stg</sub>	-40 to +125			°C
Mounting torque	F <sub>tor</sub>	recommended torque = 0.5			N•m

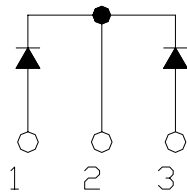
## Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j= 25^{\circ}\text{C}$ , $V_{RM}= V_{RRM}$ per arm	-	-	15	mA
Peak Forward Voltage	$V_{FM}$	$T_j= 25^{\circ}\text{C}$ , $I_{FM}= 15\text{ A}$ per arm	-	-	0.42	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	1.5	$^{\circ}\text{C/W}$
	$R_{th(c-f)}$	Cace to Fin	-	-	1.5	$^{\circ}\text{C/W}$

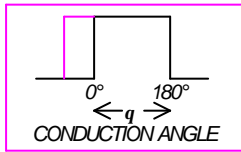
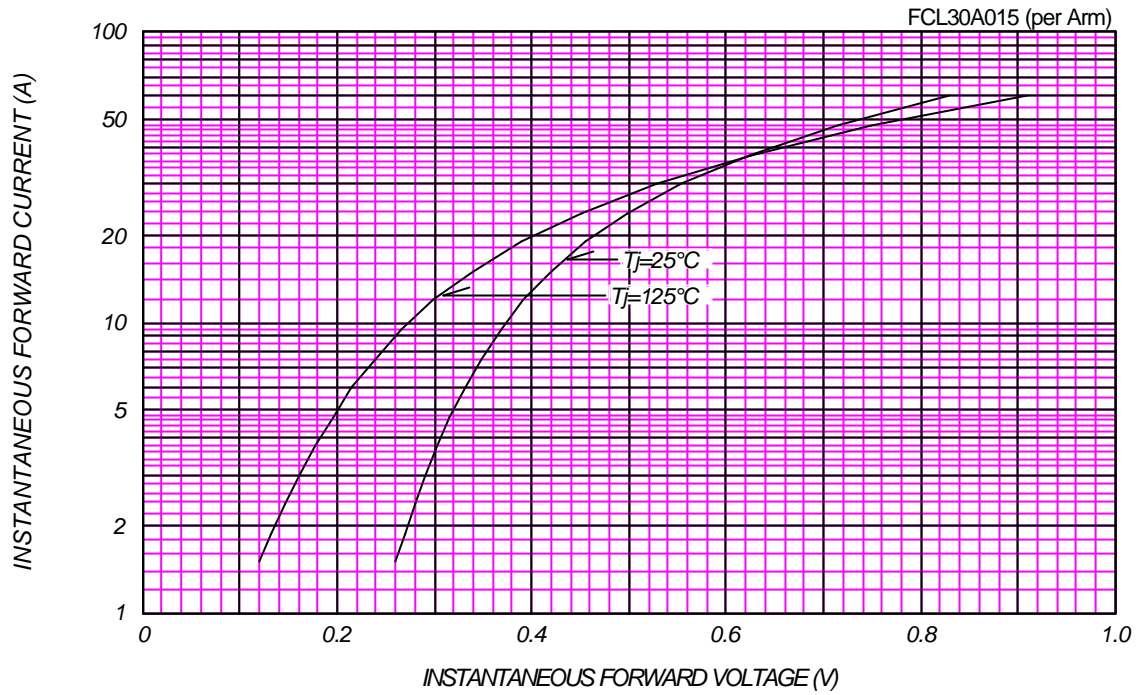
FCL\_A\_ OUTLINE DRAWING (Dimensions in mm)



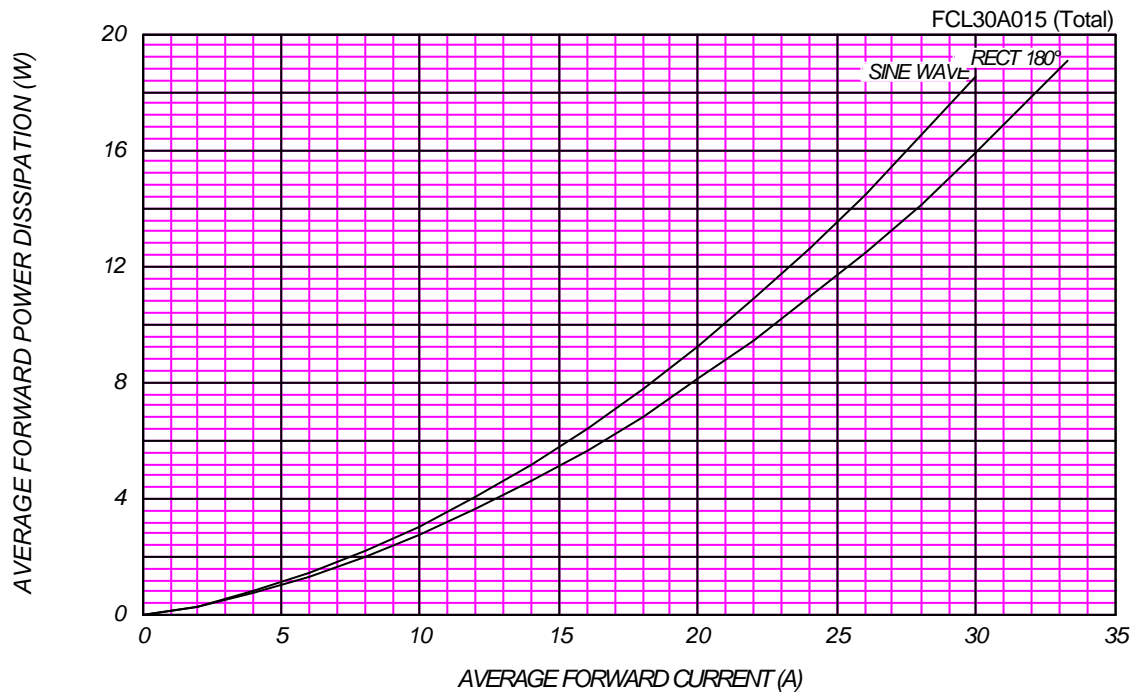
Center Tap



# FORWARD CURRENT VS. VOLTAGE



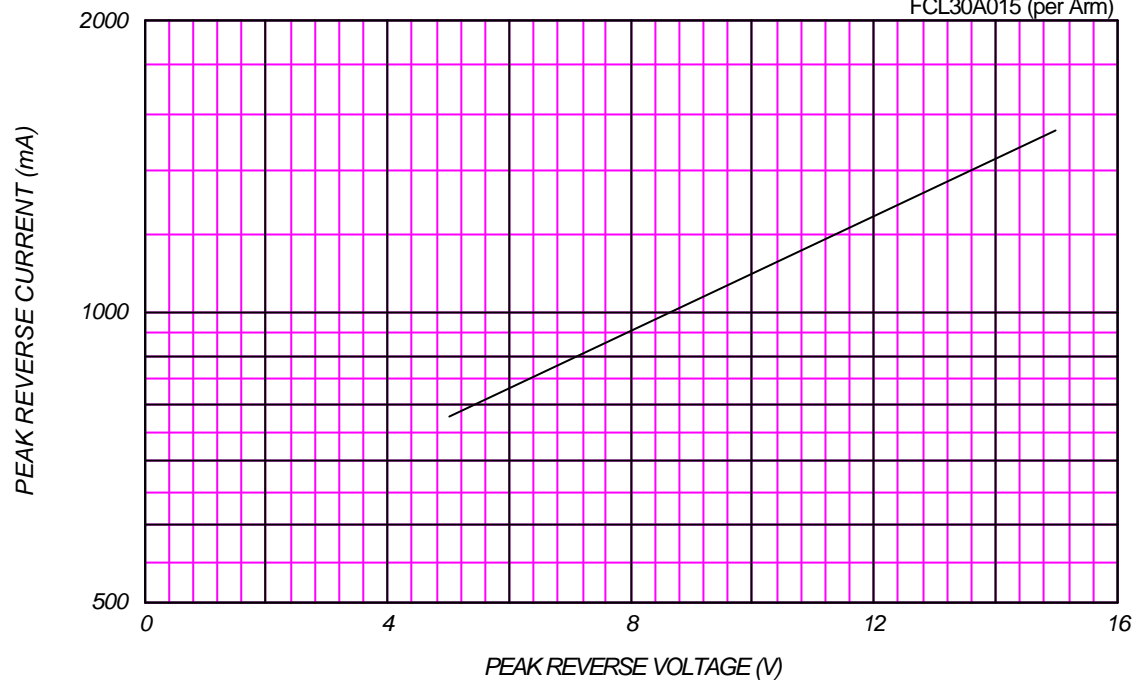
# AVERAGE FORWARD POWER DISSIPATION



### PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

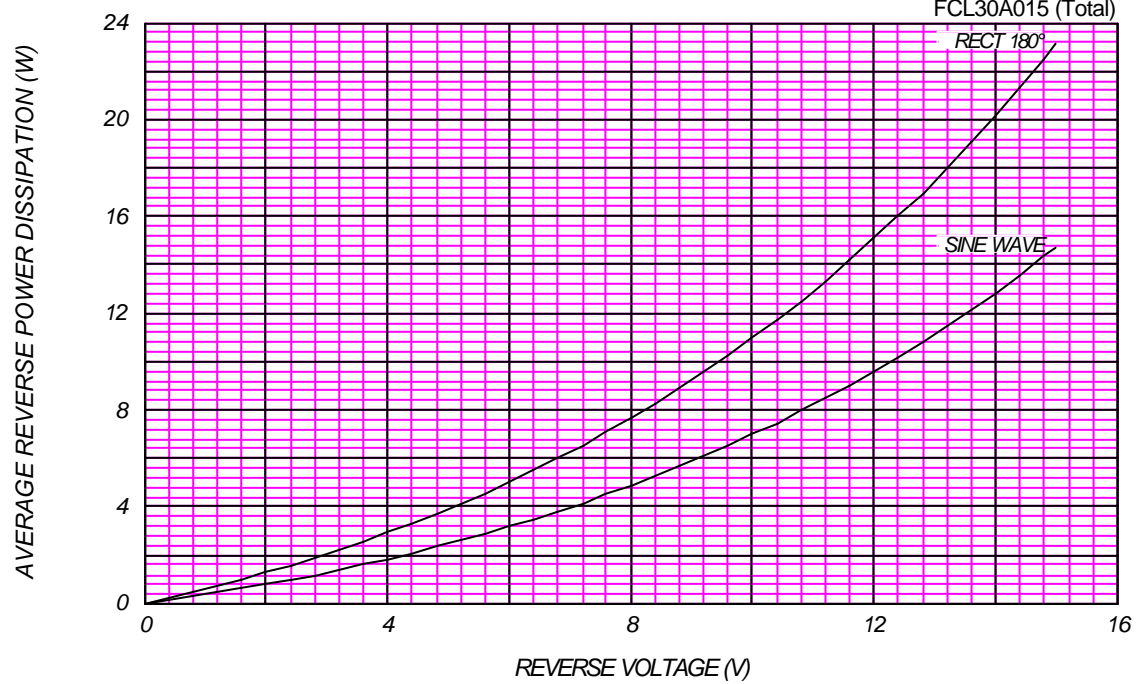
$T_j = 125\text{ }^{\circ}\text{C}$

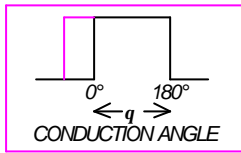
FCL30A015 (per Arm)



### AVERAGE REVERSE POWER DISSIPATION

FCL30A015 (Total)

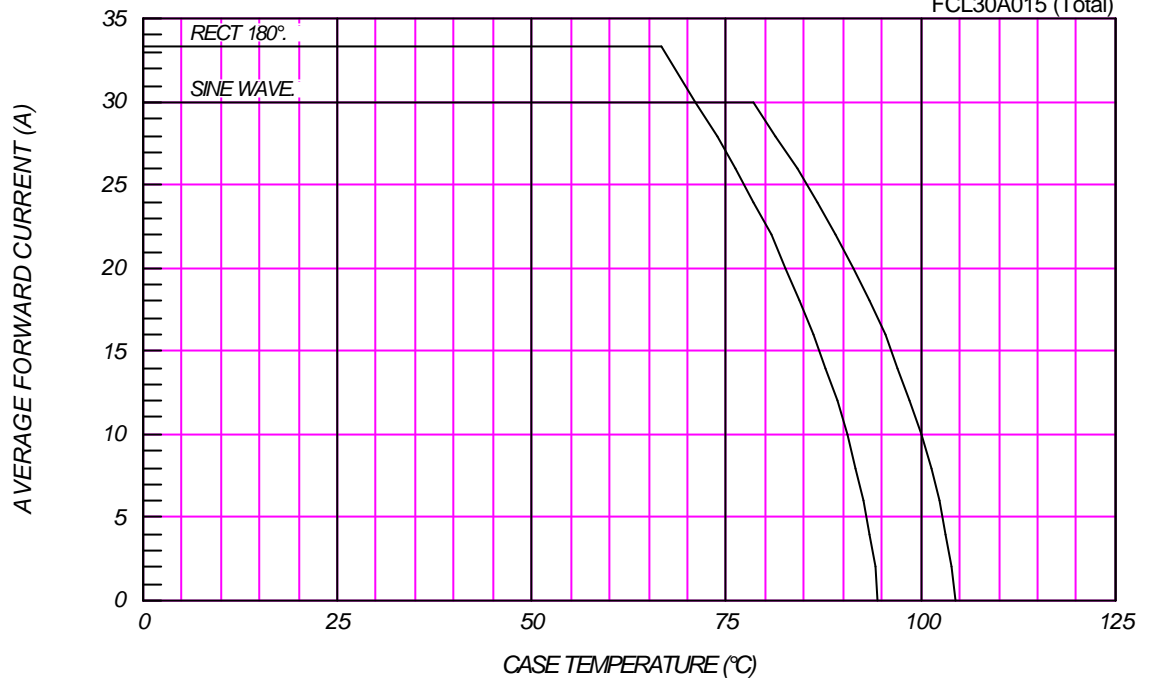




### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=15\text{ V}$

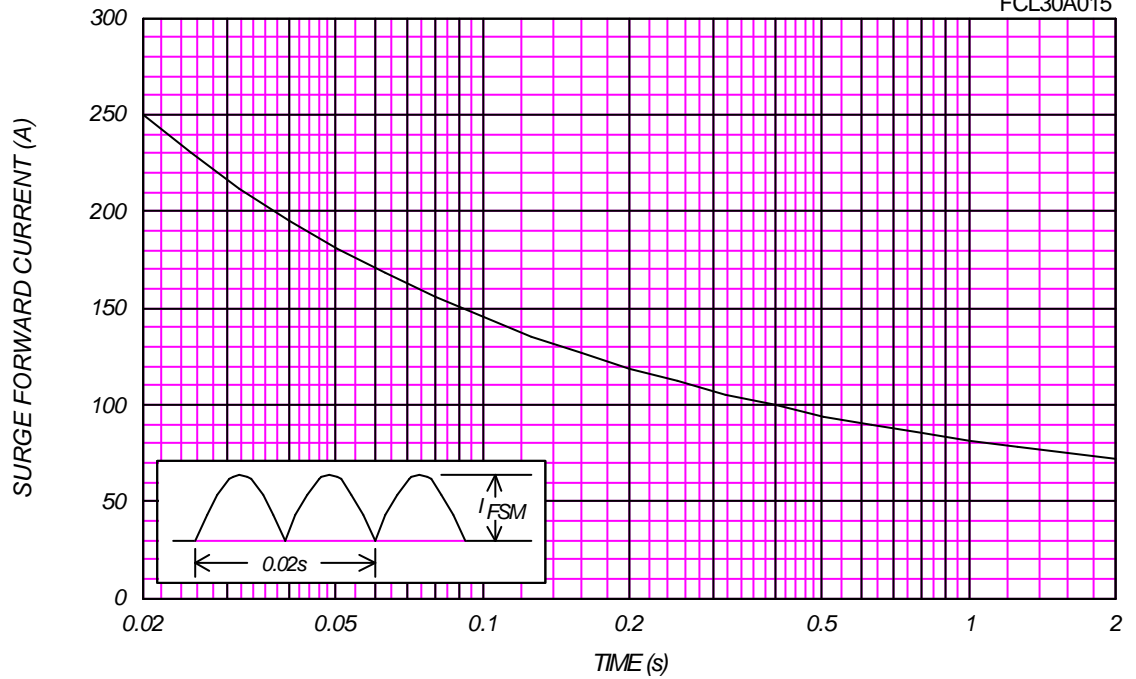
FCL30A015 (Total)



### SURGE CURRENT RATINGS

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

FCL30A015



# JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

FCL30A015 (per Arm)

