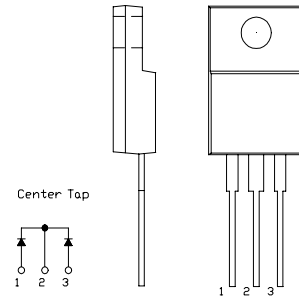


SBD Type : FCH30B03L

OUTLINE DRAWING

30A 30V Tj:150°C
FEATURES

- *TO-220AB Case
- *Fully Molded
- *Dual Diodes – Cathode Common
- *Low Forward Voltage Drop
- *High Surge Capability
- *Tj=150 °C operation



Maximum Ratings

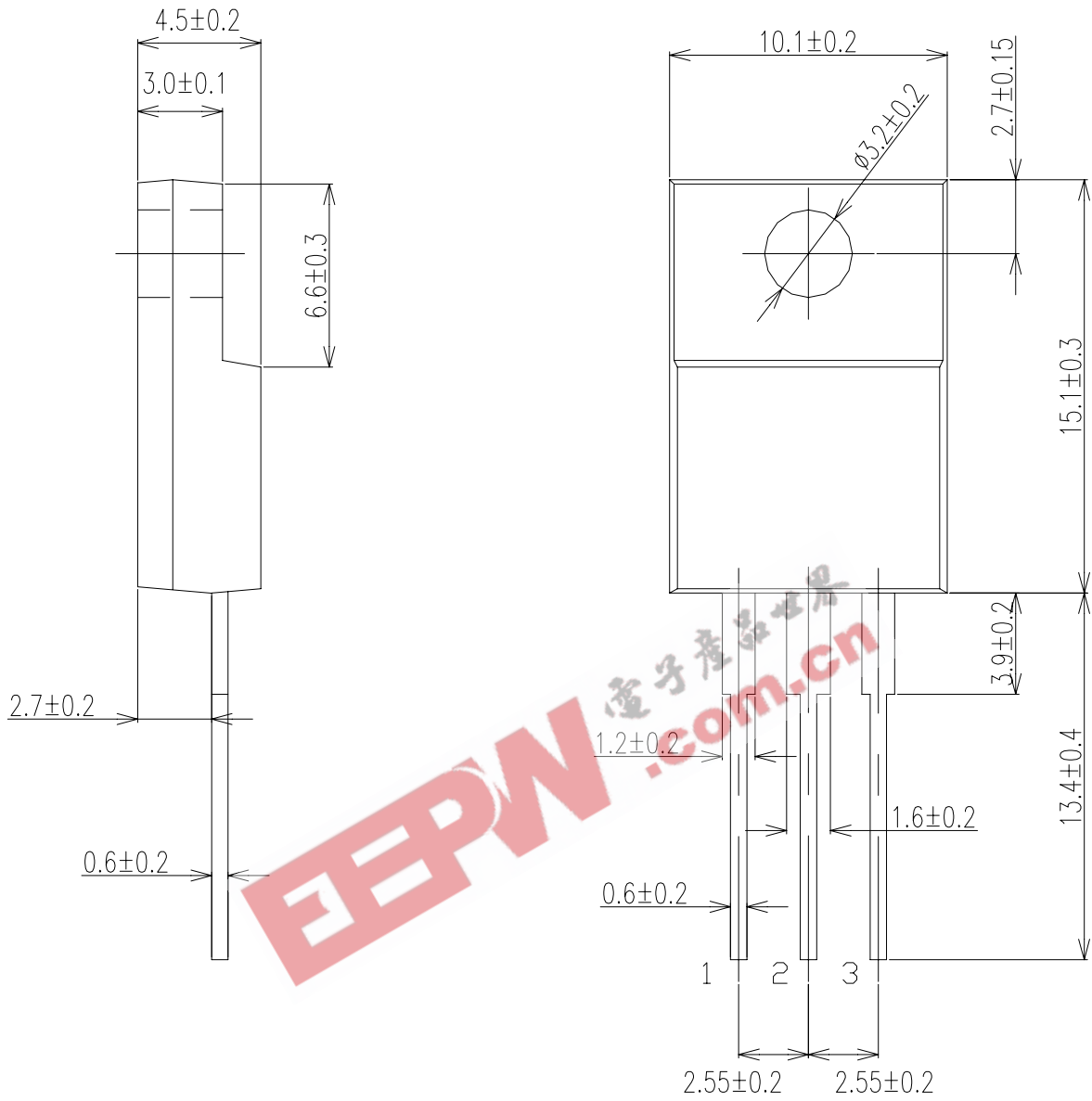
Approx Net Weight: 1.75g

Rating	Symbol	FCH30B03L		Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30		V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	35	Pulse width $\leq 1\mu s$, Duty $\leq 1/50$	V
Average Rectified Output Current	I_O	30	$T_c=114^\circ C$ 50 Hz Full Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	33.3		A
Surge Forward Current	I_{FSM}	150	50Hz Full 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

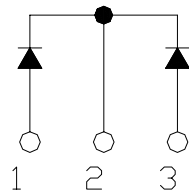
Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	$T_j = 25^\circ C$, $V_{RM} = V_{RRM}$ per Arm	-	-	1	mA
Peak Forward Voltage	V_{FM}	$T_j = 25^\circ C$, $I_{FM} = 15A$ per Arm	-	-	0.59	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	1.5	°C/W
	$R_{th(c-f)}$	Case to Fin	-	-	1.5	°C/W

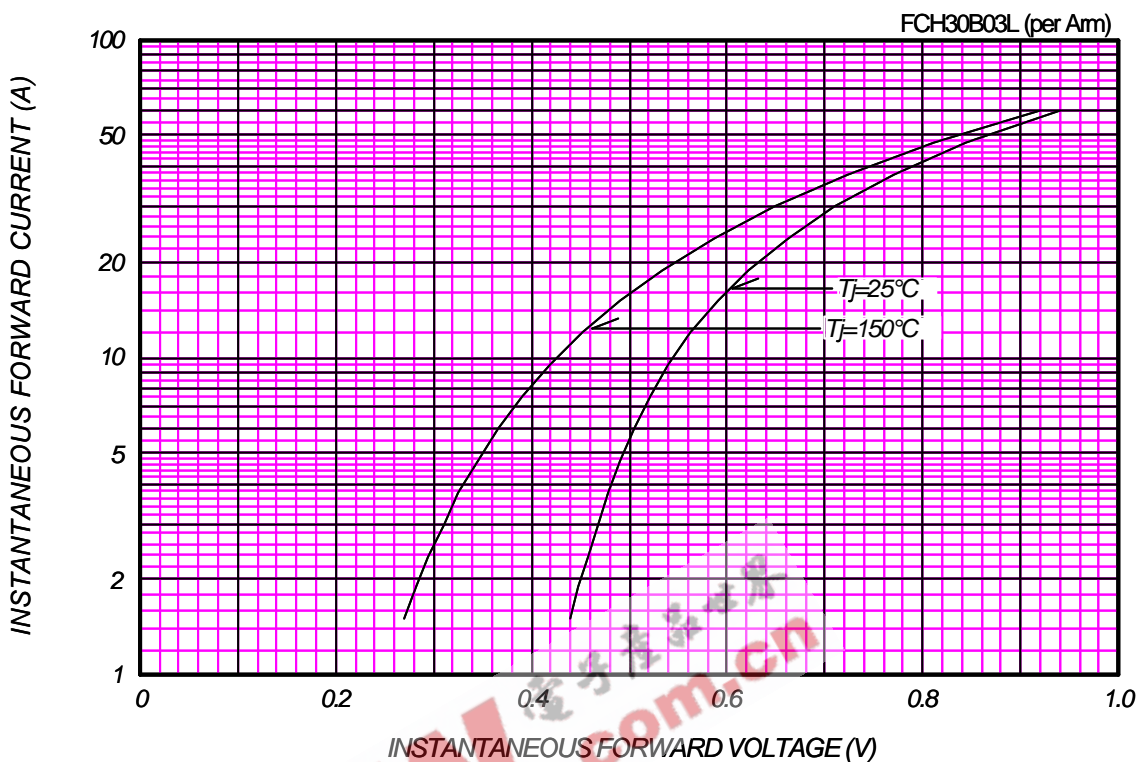
FCH_B_ OUTLINE DRAWING (Dimensions in mm)



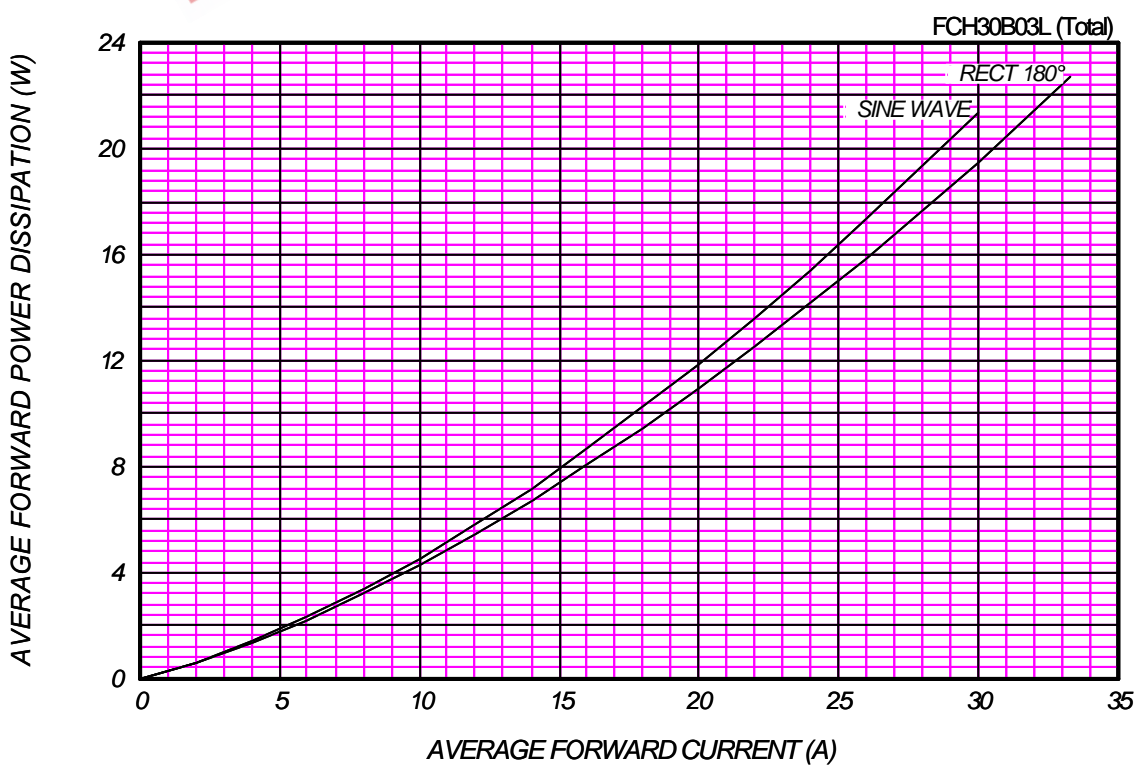
Center Tap



FORWARD CURRENT VS. VOLTAGE



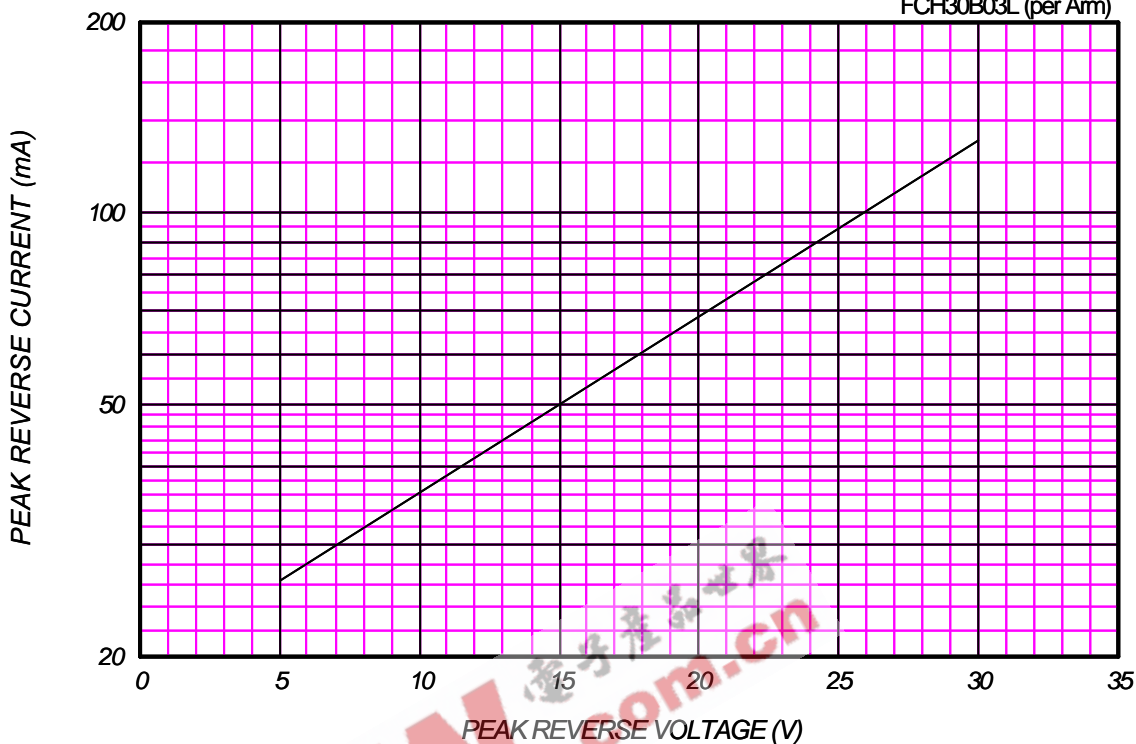
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

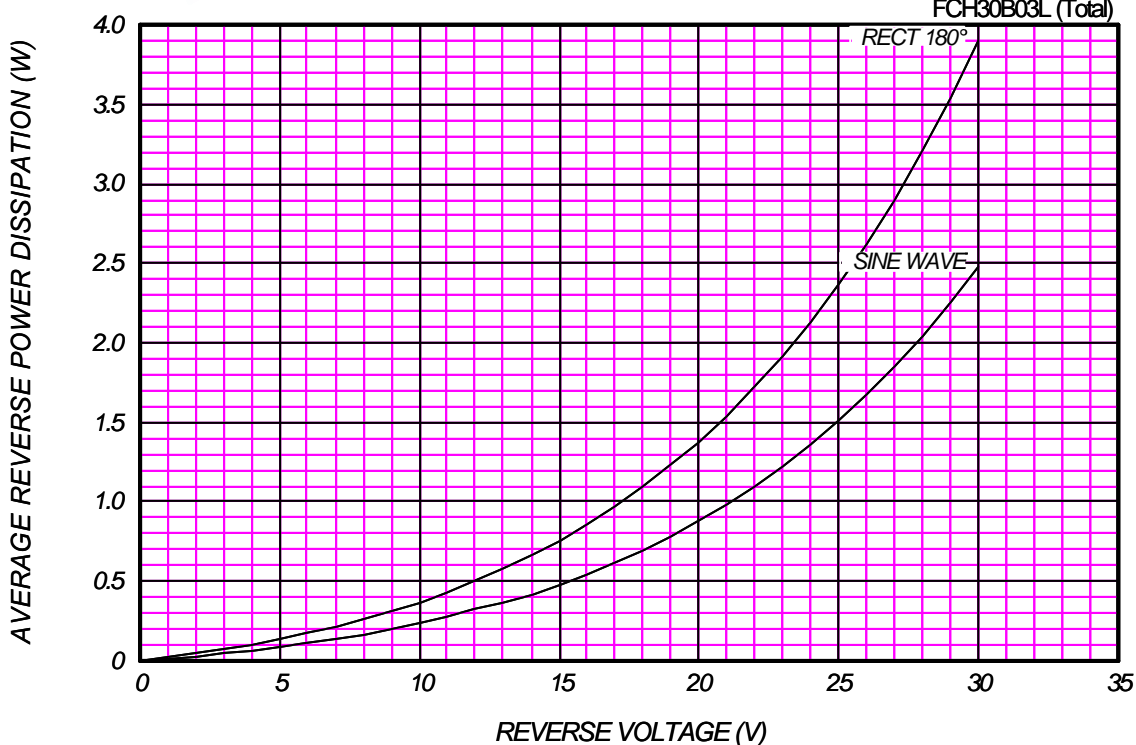
$T_J = 150^\circ\text{C}$

FCH30B03L (per Arm)



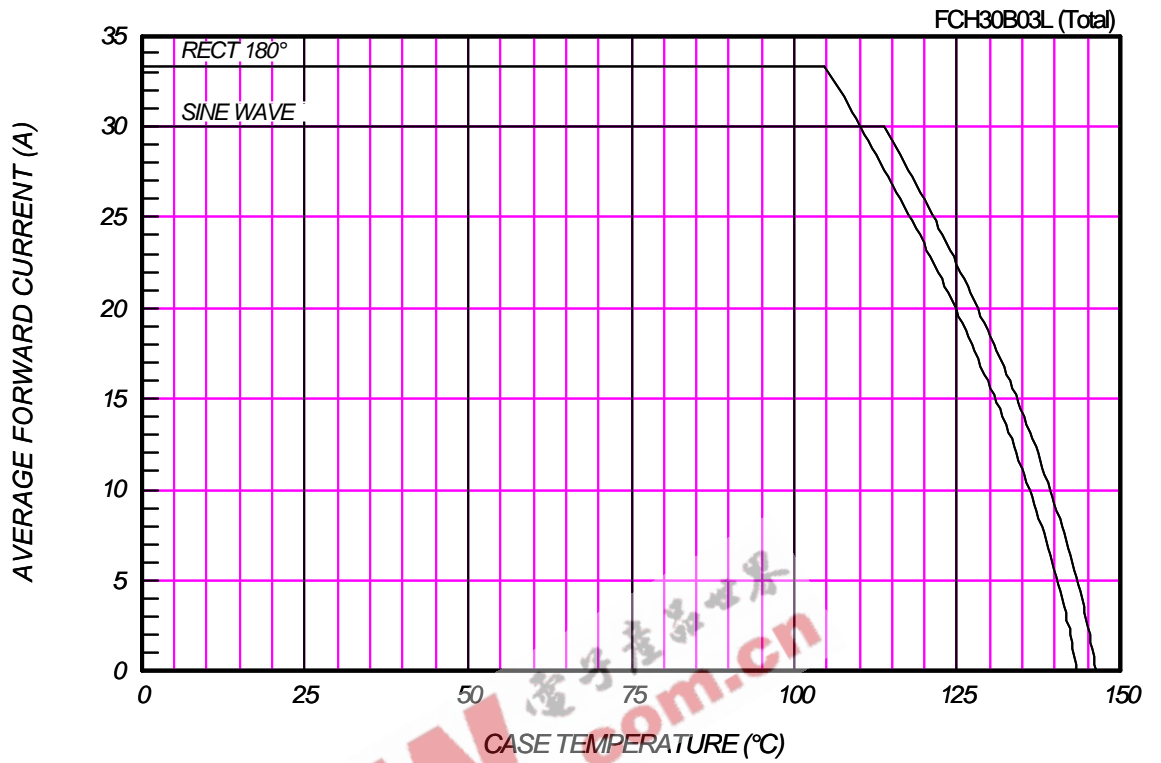
AVERAGE REVERSE POWER DISSIPATION

FCH30B03L (Total)



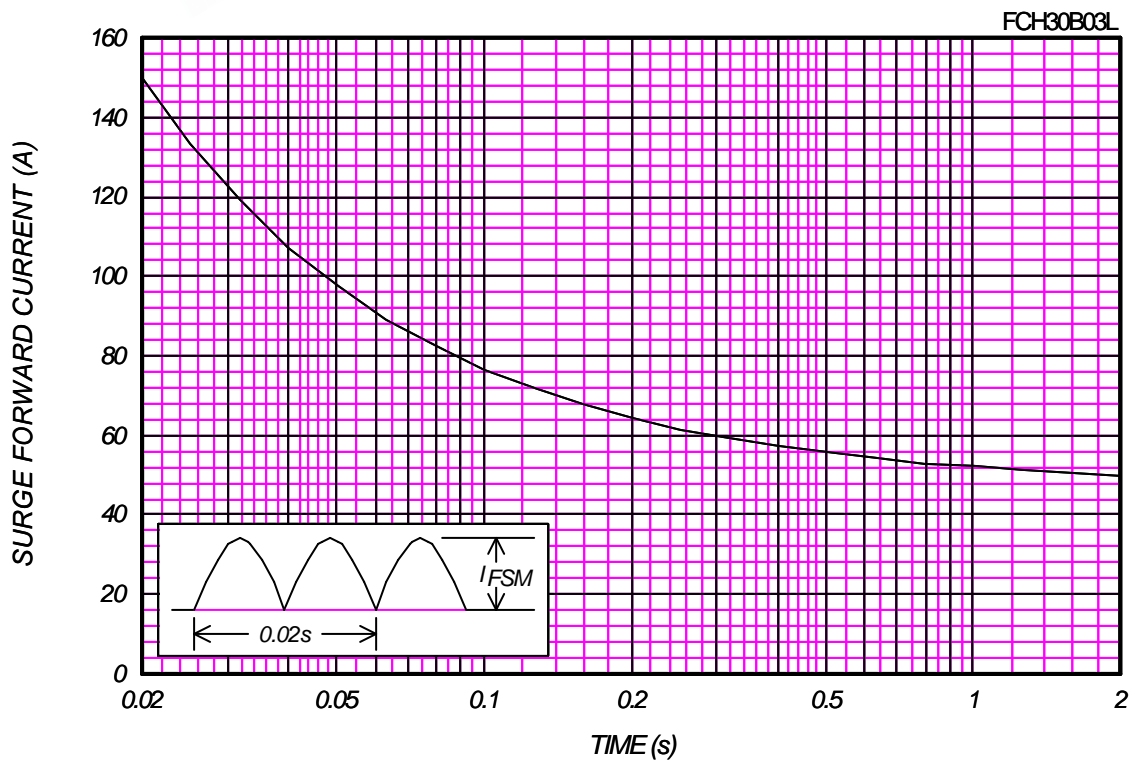
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=30V$



SURGE CURRENT RATINGS

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



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

FCH30B03L (per Am)

