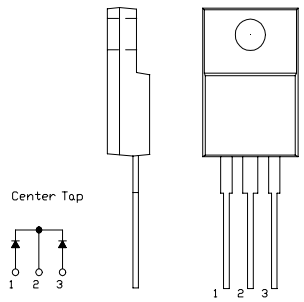
Nihon Inter Electronics Corporation

SBD Type : FCH20A09

OUTLINE DRAWING



FEATURES

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

Maximum Ratings

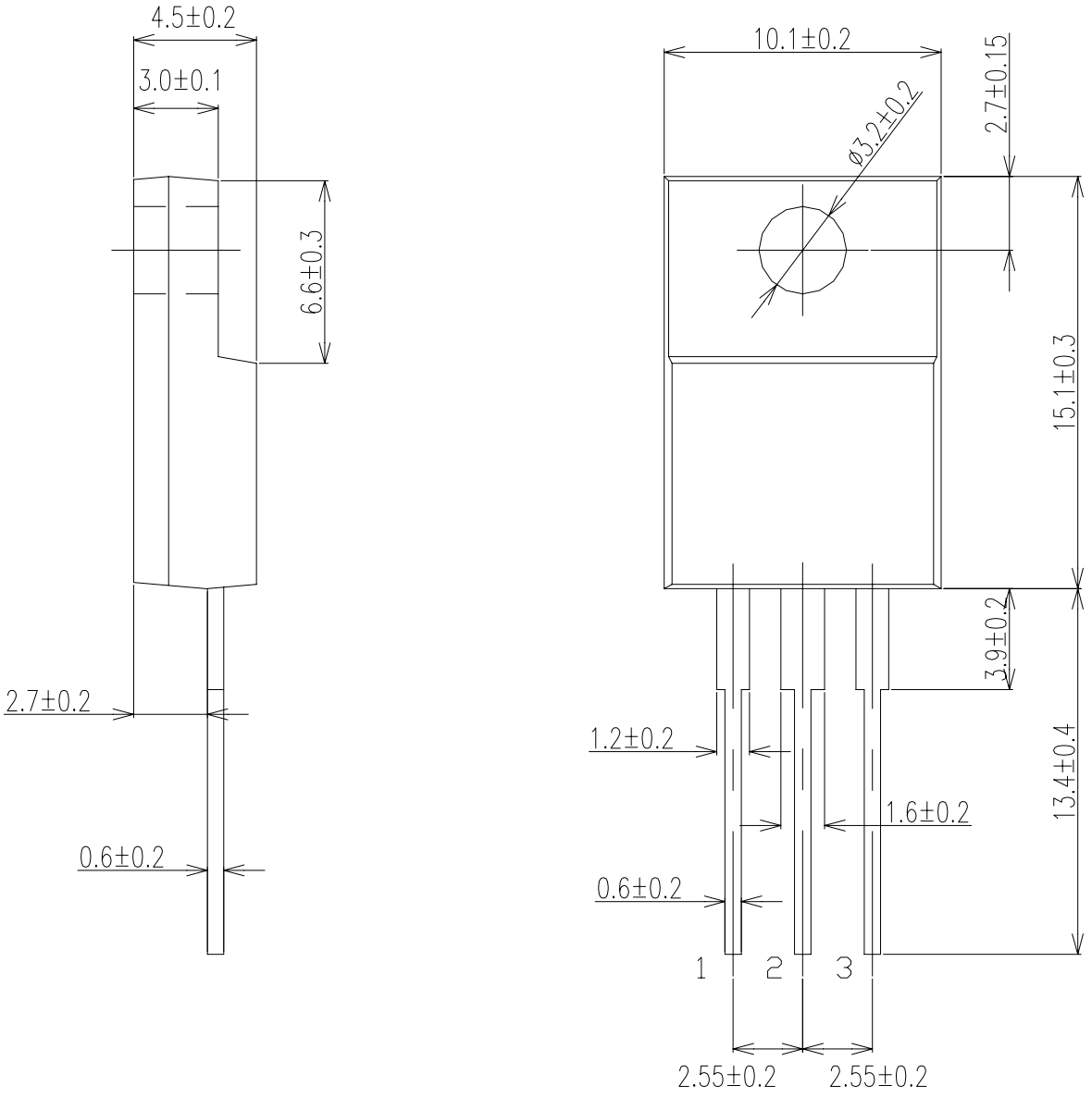
Approx Net Weight: 1.75g

Rating	Symbol	FCH20A09			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	90			V
Average Rectified Output Current	I_O	20	Tc=121℃	50 Hz Full Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	22.2			A
Surge Forward Current	I_{FSM}	180	50Hz Full Sine Wave ,1cycle Non-repetitive		A
Operating JunctionTemperature Range	T_{jw}	-40 to +150			℃
Storage Temperature Range	T_{stg}	-40 to +150			℃
Mounting torque	Ftor	recommended torque = 0.5			N•m

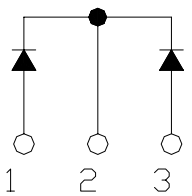
Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	Tj= 25℃, V_{RM}= V_{RRM} per arm	-	-	1	mA
Peak Forward Voltage	V_{FM}	Tj= 25℃, I_{FM}= 10 A per arm	-	-	0.88	V
Thermal Resistance	Rth(j-c)	Junction to Case	-	-	1.5	℃/W
	Rth(c-f)	Cace to Fin	-	-	1.5	℃/W

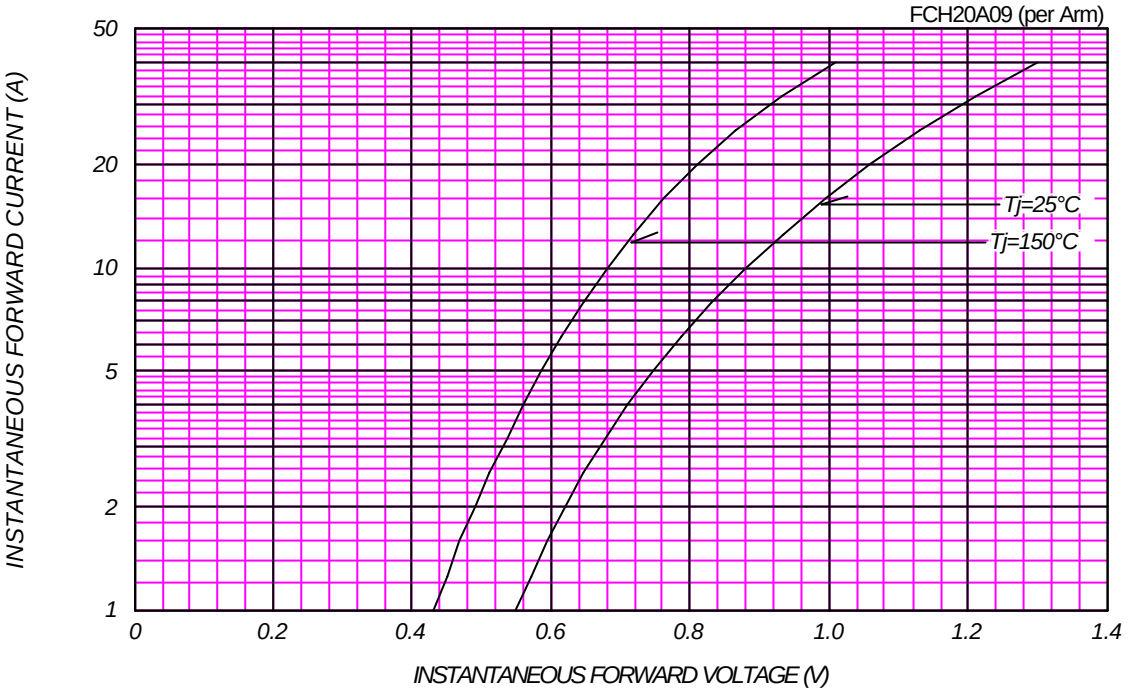
FCH_A_ OUTLINE DRAWING (Dimensions in mm)

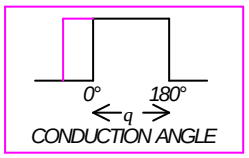


Center Tap

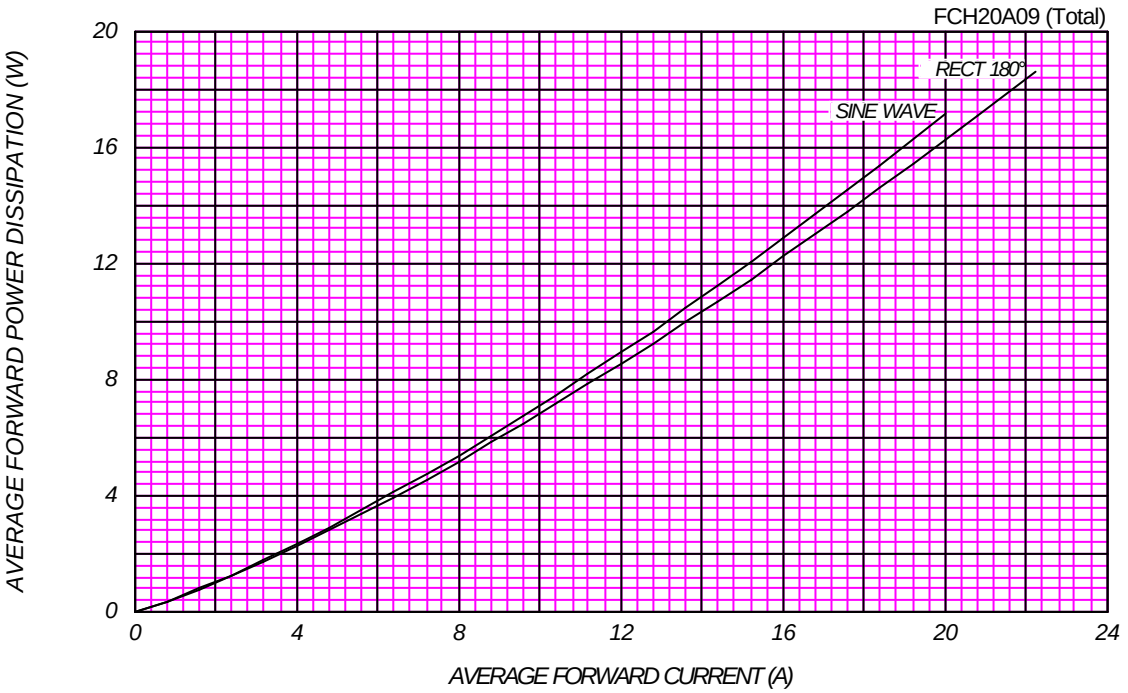


FORWARD CURRENT VS. VOLTAGE

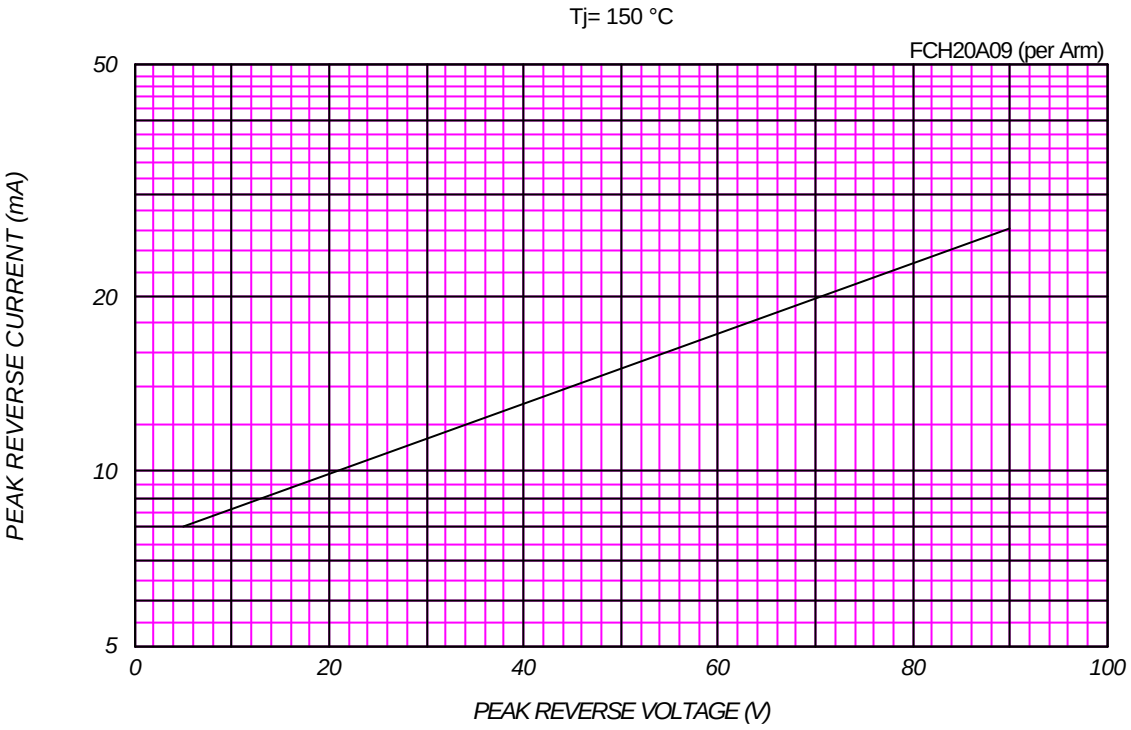




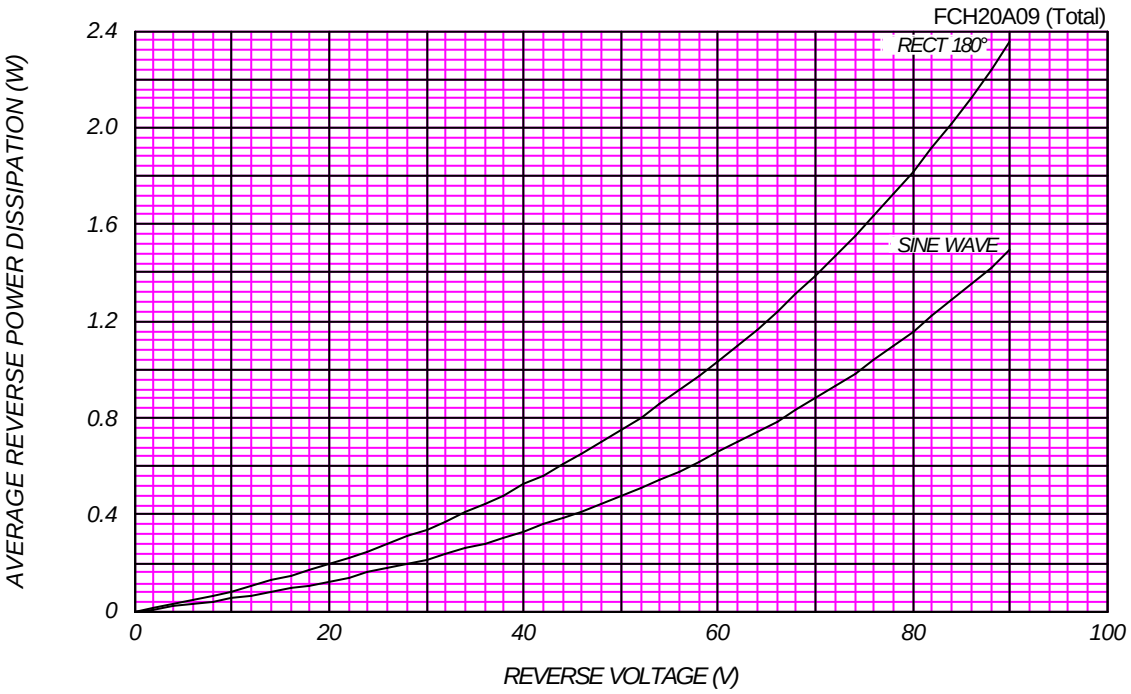
AVERAGE FORWARD POWER DISSIPATION

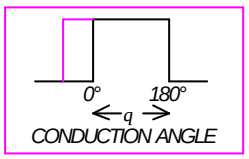


PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE



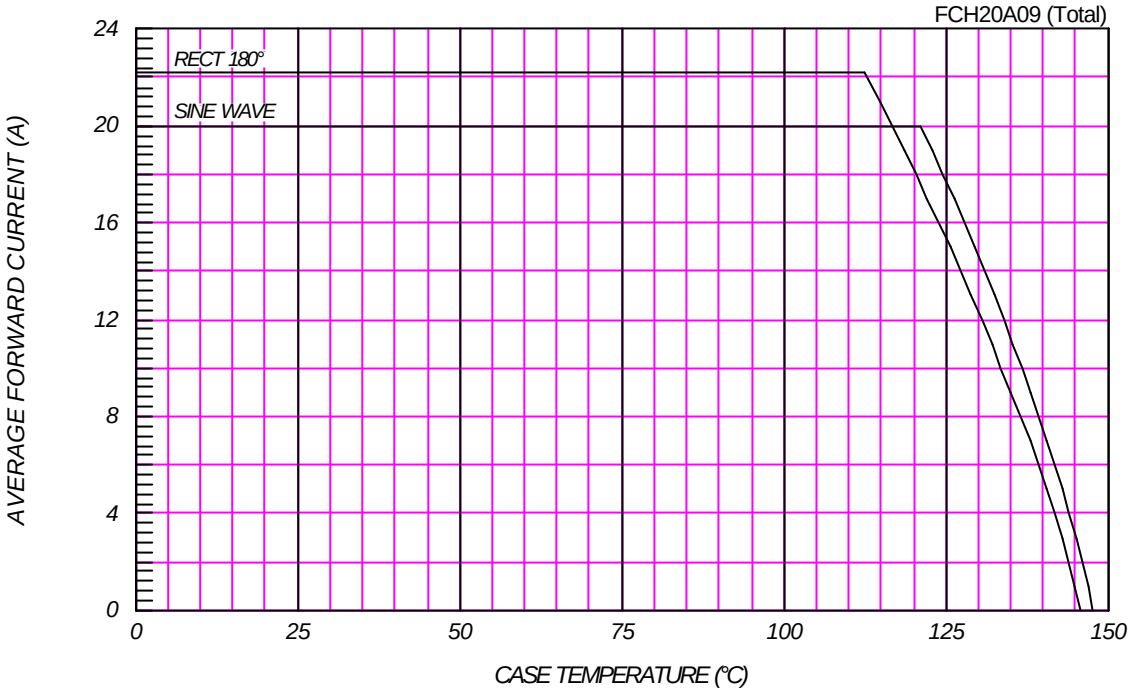
AVERAGE REVERSE POWER DISSIPATION





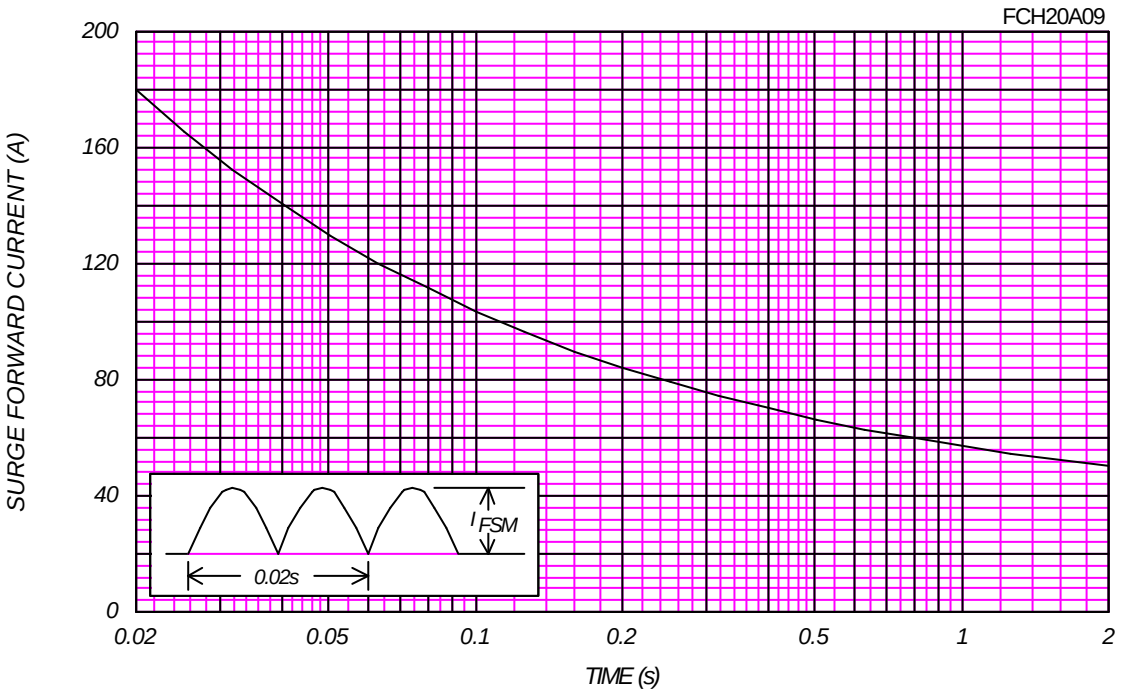
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

V_{RM}=90V



SURGE CURRENT RATINGS

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



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

Tj=25° C,Vm=20mV$_{RMS}$,f=100kHz,Typical Value