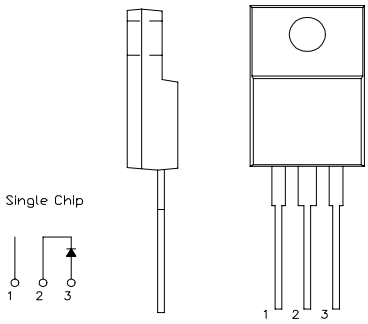
Nihon Inter Electronics Corporation

SBD Type : FSH10A03LB

OULINE DRAWING

FEATURES

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



Maximum Ratings

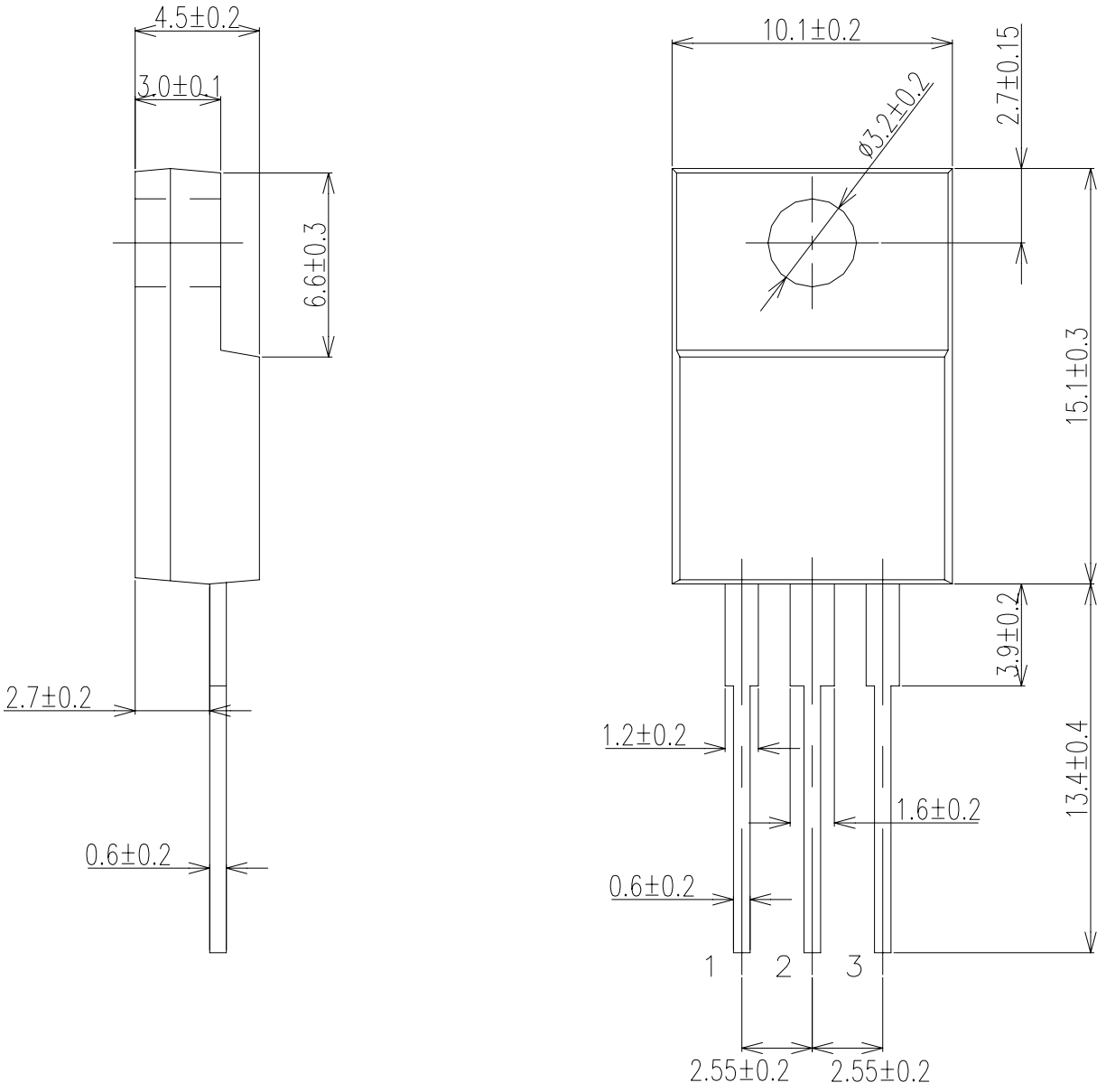
Approx Net Weight: 1.75g

Rating	Symbol	FSH10A03LB			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30			V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	35(pulse width ≤ 1μs duty ≤ 1/50)			V
Average Rectified Output Current	I_O	10	Tc=128℃	50 Hz half Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	15.7			A
Surge Forward Current	I_{FSM}	180	50Hz Half 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

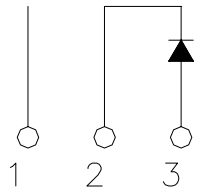
Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	Tj= 25℃, V_{RM}= V_{RRM}	-	-	1	mA
Peak Forward Voltage	V_{FM}	Tj= 25℃, I_{FM}= 10 A	-	-	0.54	V
Thermal Resistance	Rth(j-c)	Junction to Case	-	-	3	℃/W
	Rth(c-f)	Cace to Fin	-	-	1.5	℃/W

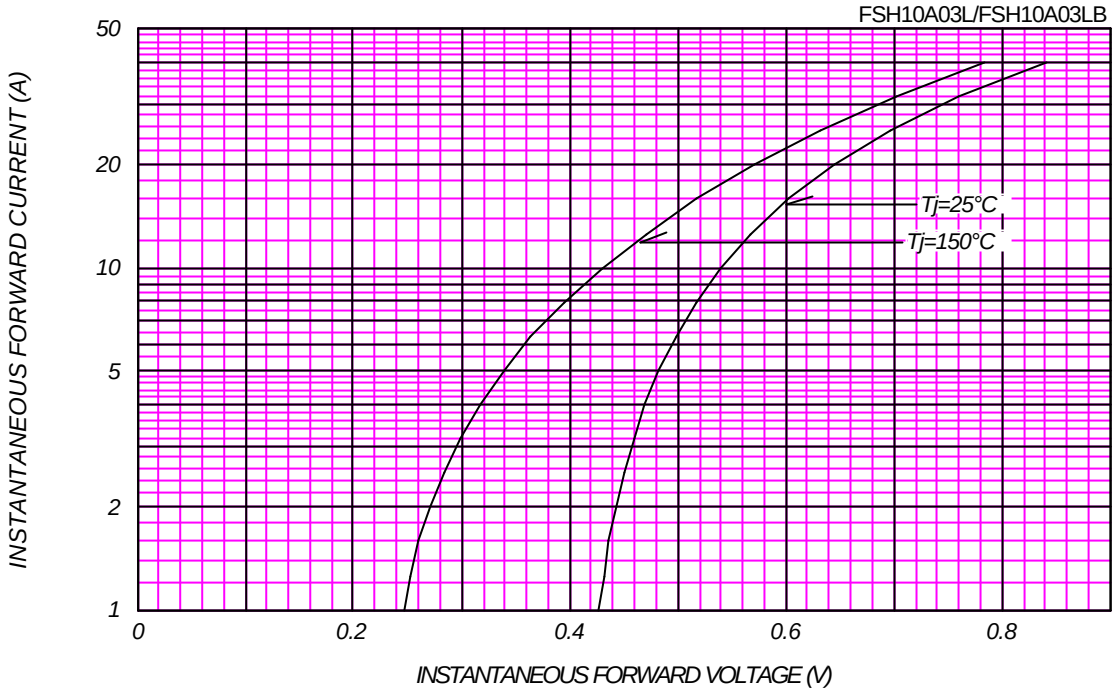
FSH_A_B OUTLINE DRAWING (Dimensions in mm)

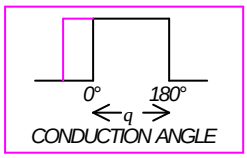


Single Chip

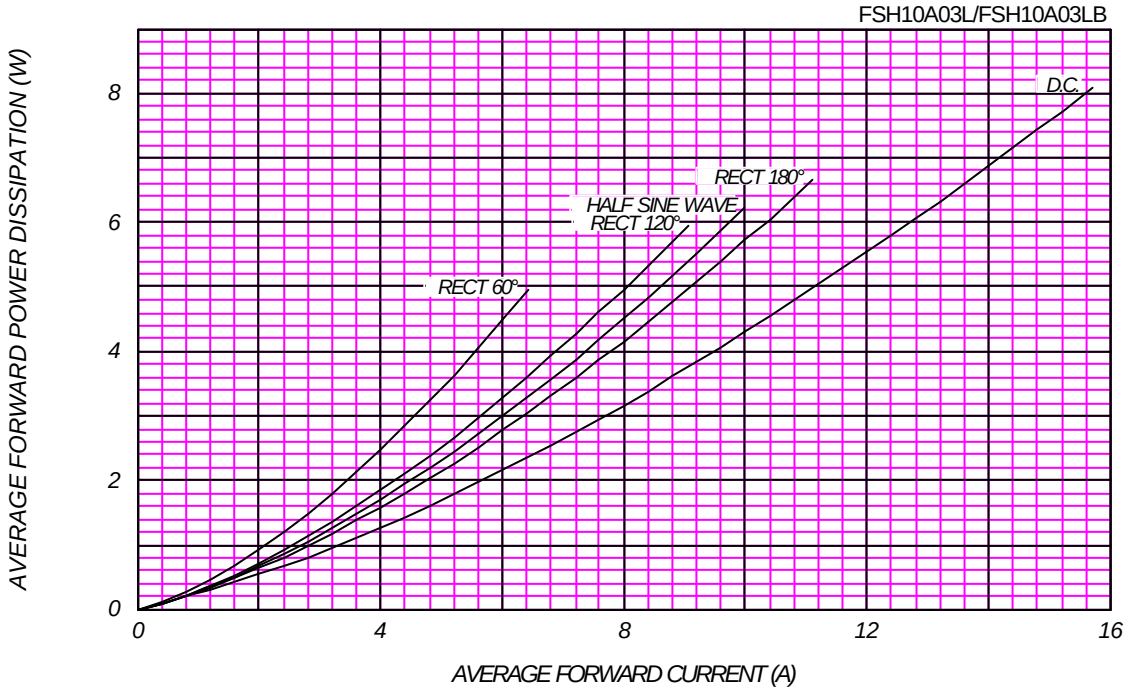


FORWARD CURRENT VS. VOLTAGE





AVERAGE FORWARD POWER DISSIPATION



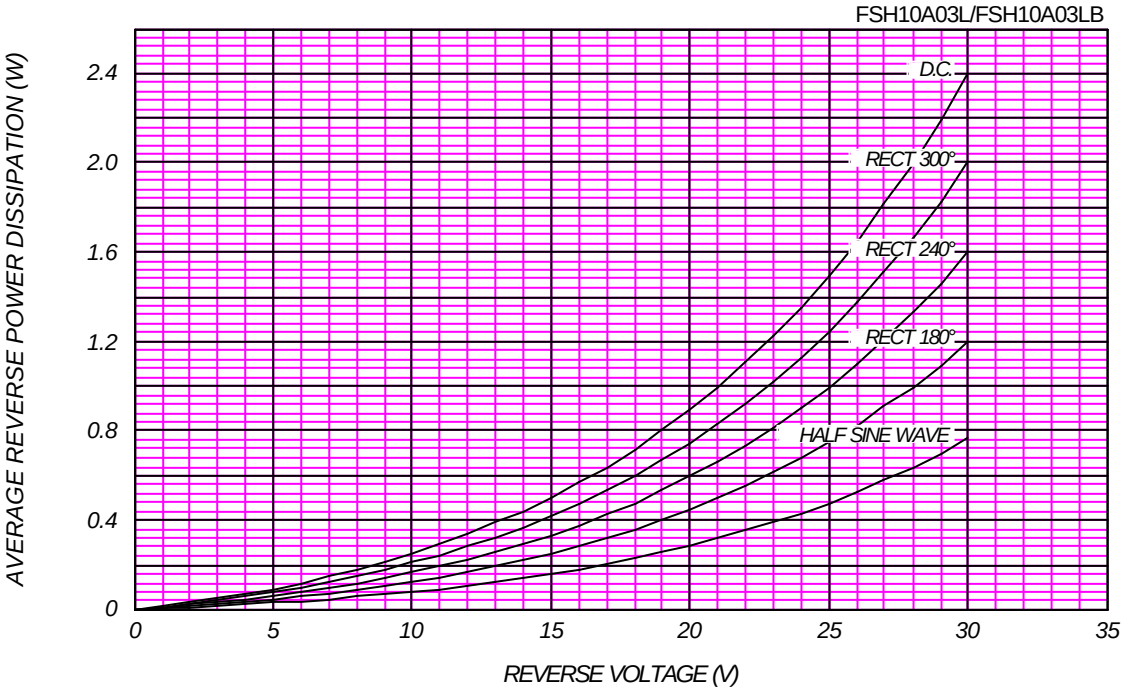
PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

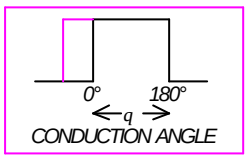
Tj= 150 °C

FSH10A03L/FSH10A03LB

AVERAGE REVERSE POWER DISSIPATION

FSH10A03L/FSH10A03LB

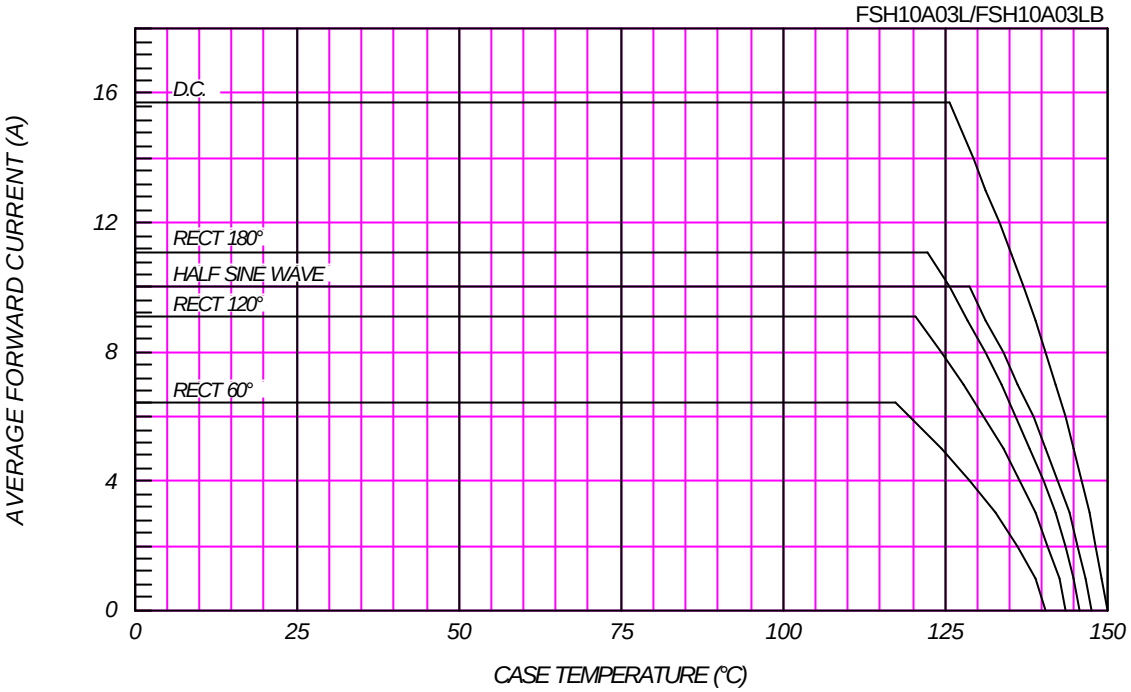




AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

V_{RM}=30 V

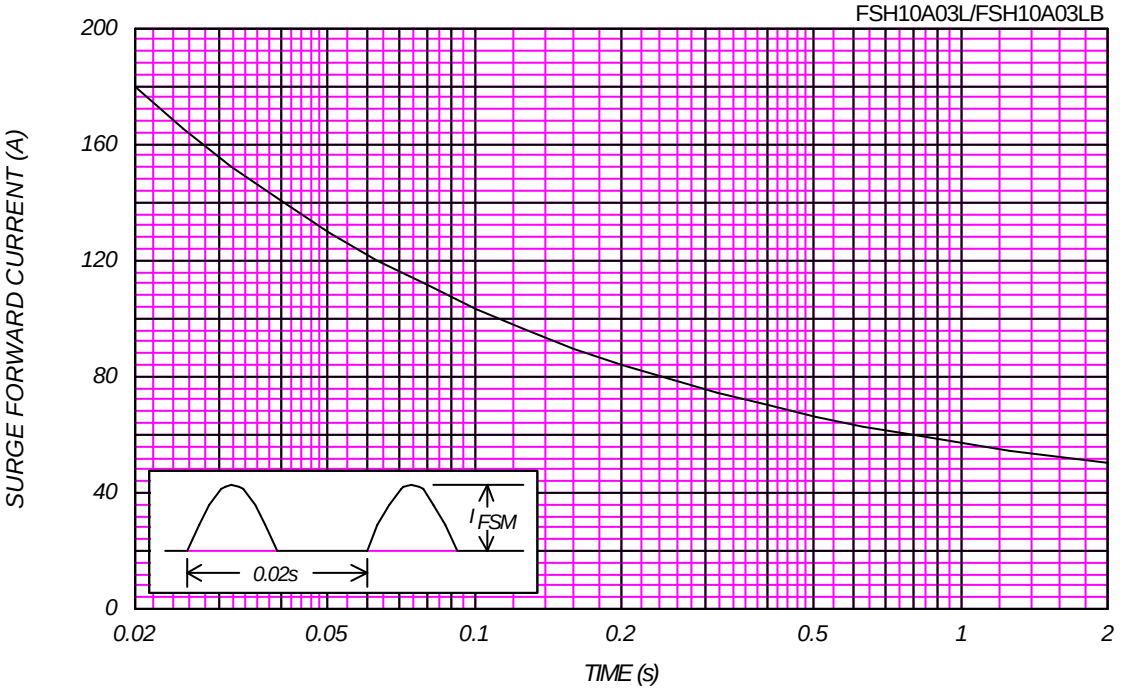
FSH10A03L/FSH10A03LB



SURGE CURRENT RATINGS

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

FSH10A03L/FSH10A03LB



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

FSH10A03L/FSH10A03LB