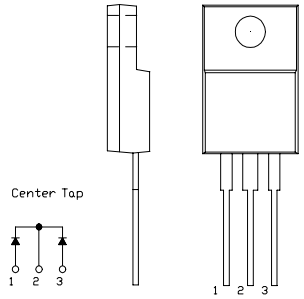
Nihon Inter Electronics Corporation

SBD Type : FCH10A15

OUTLINE DRAWING



FEATURES

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

Maximum Ratings

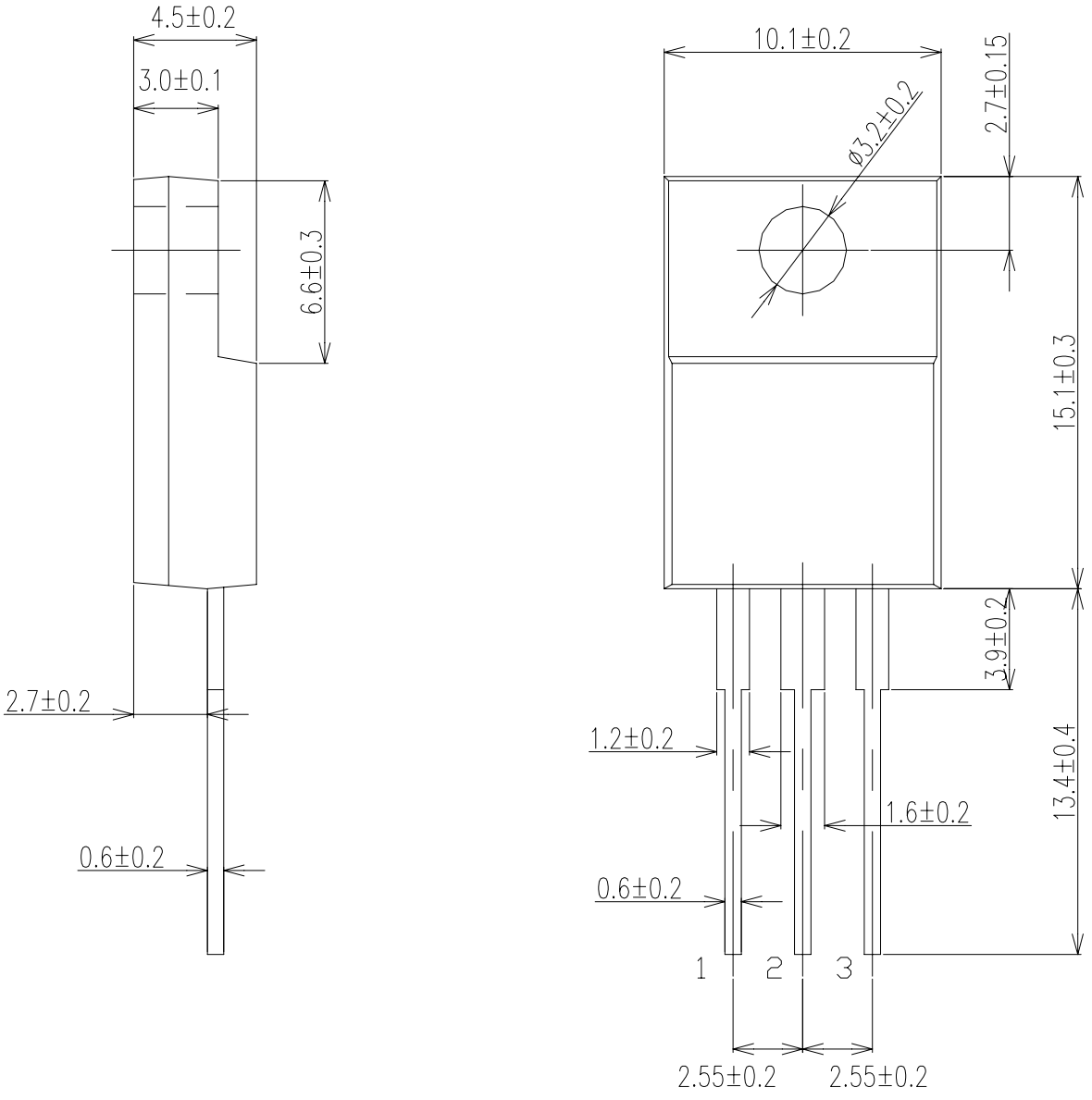
Approx Net Weight: 1.75g

Rating	Symbol	FCH10A15			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	150			V
Average Rectified Output Current	I_O	10	Tc=121℃	50 Hz Full Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	11.1			A
Surge Forward Current	I_{FSM}	130	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

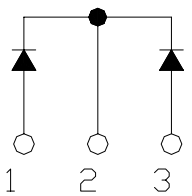
Electrical • Thermal Characteristics

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}= 5 A per arm	-	-	0.88	V
Thermal Resistance	Rth(j-c)	Junction to Case	-	-	3	℃ /W
	Rth(c-f)	Cace to Fin	-	-	1.5	℃ /W

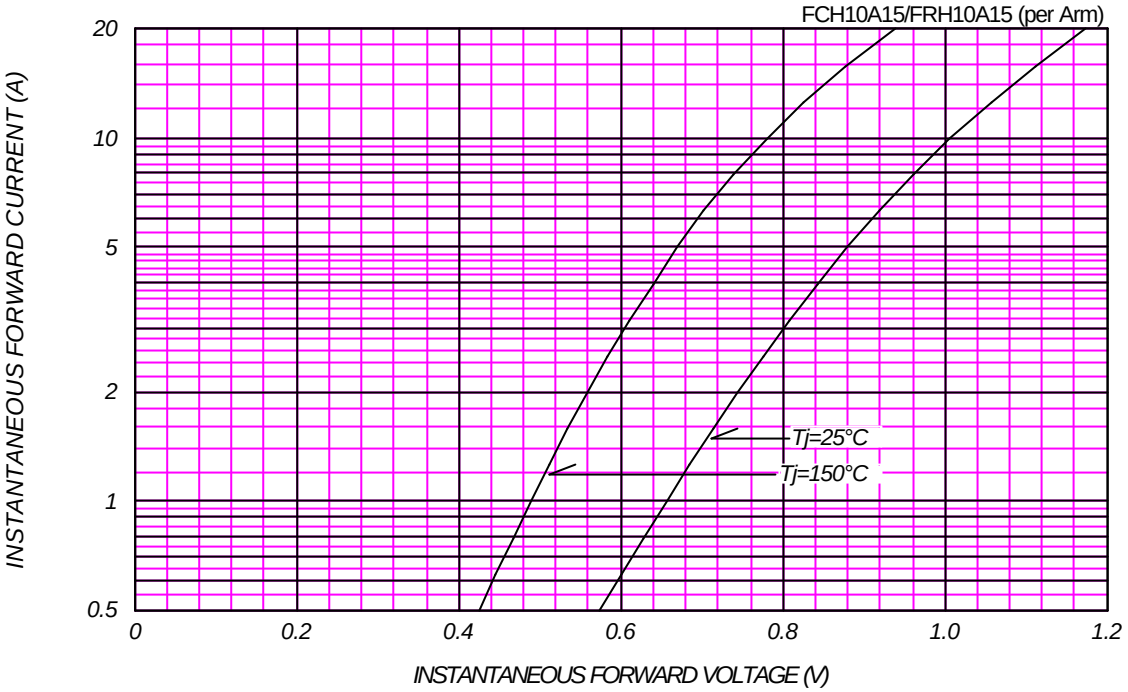
FCH_A_ OUTLINE DRAWING (Dimensions in mm)

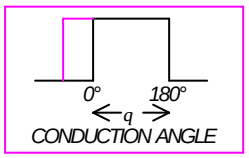


Center Tap

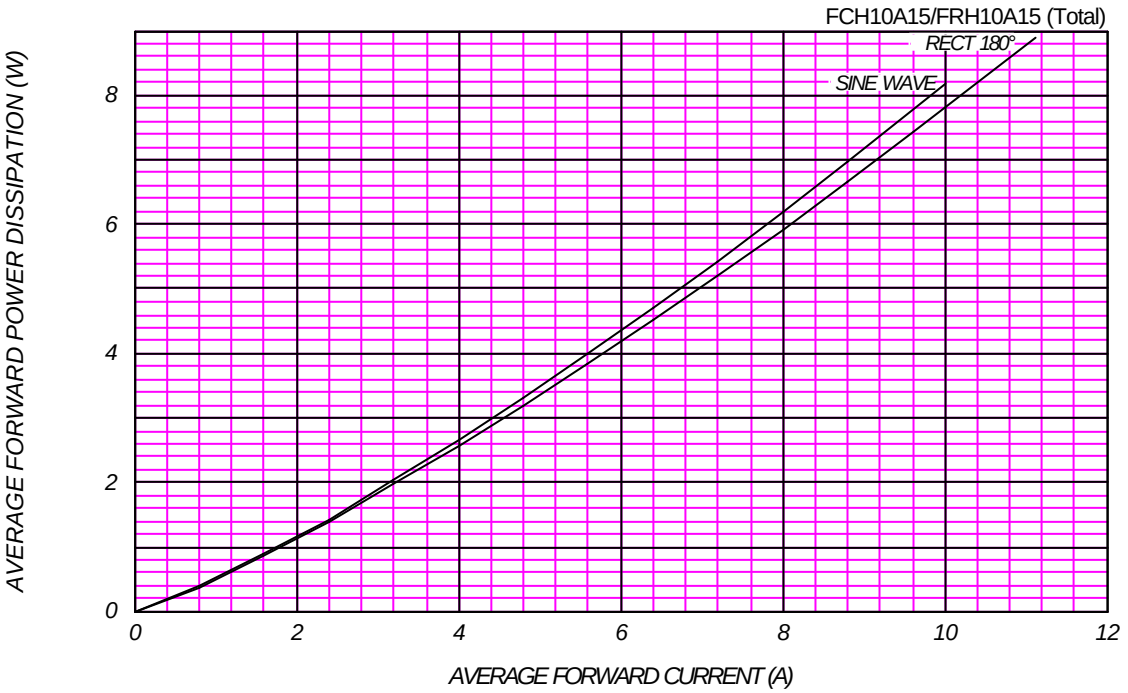


FORWARD CURRENT VS. VOLTAGE

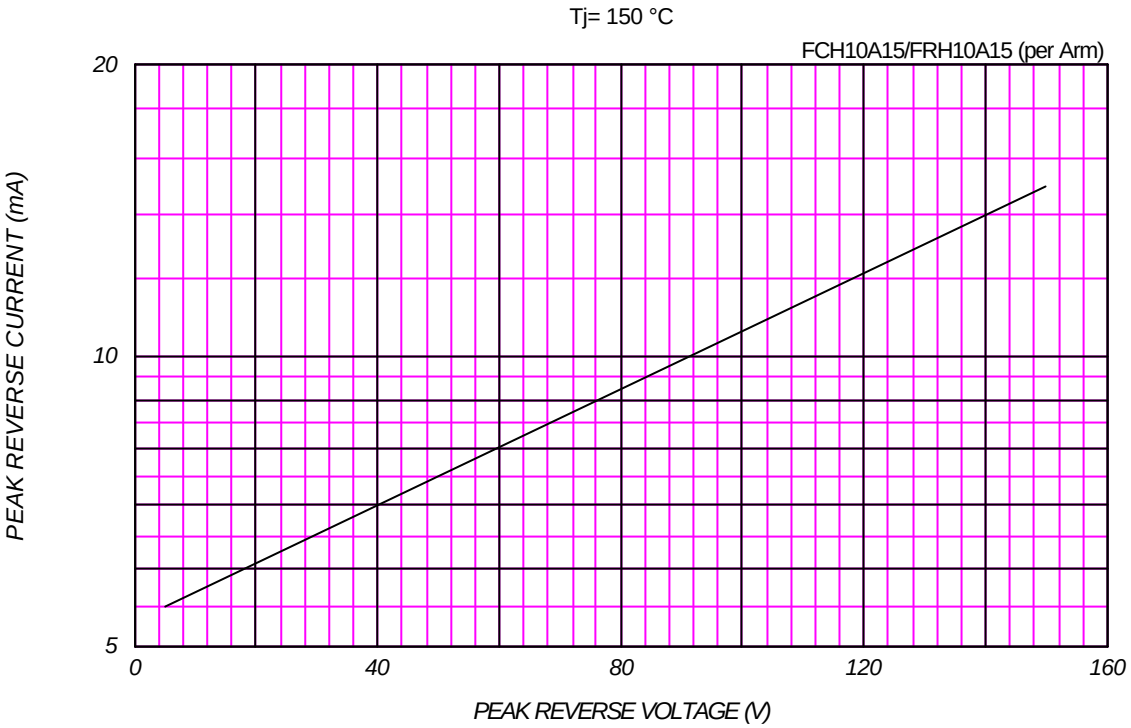




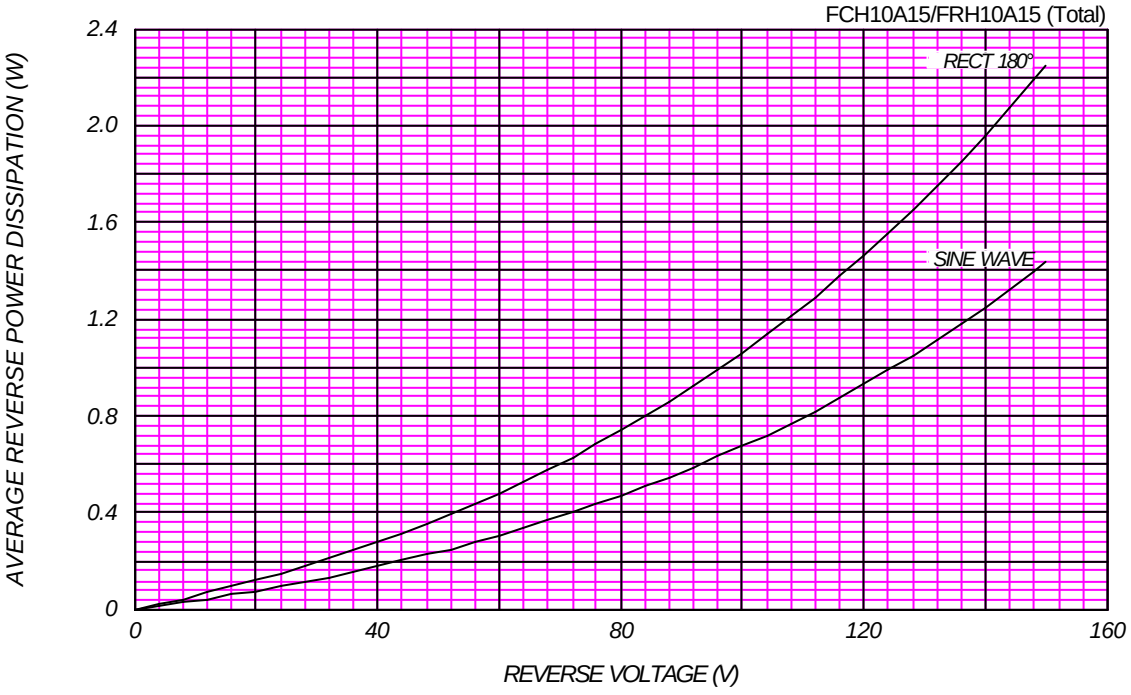
AVERAGE FORWARD POWER DISSIPATION

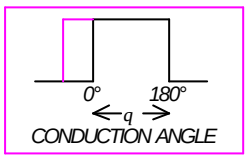


PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE



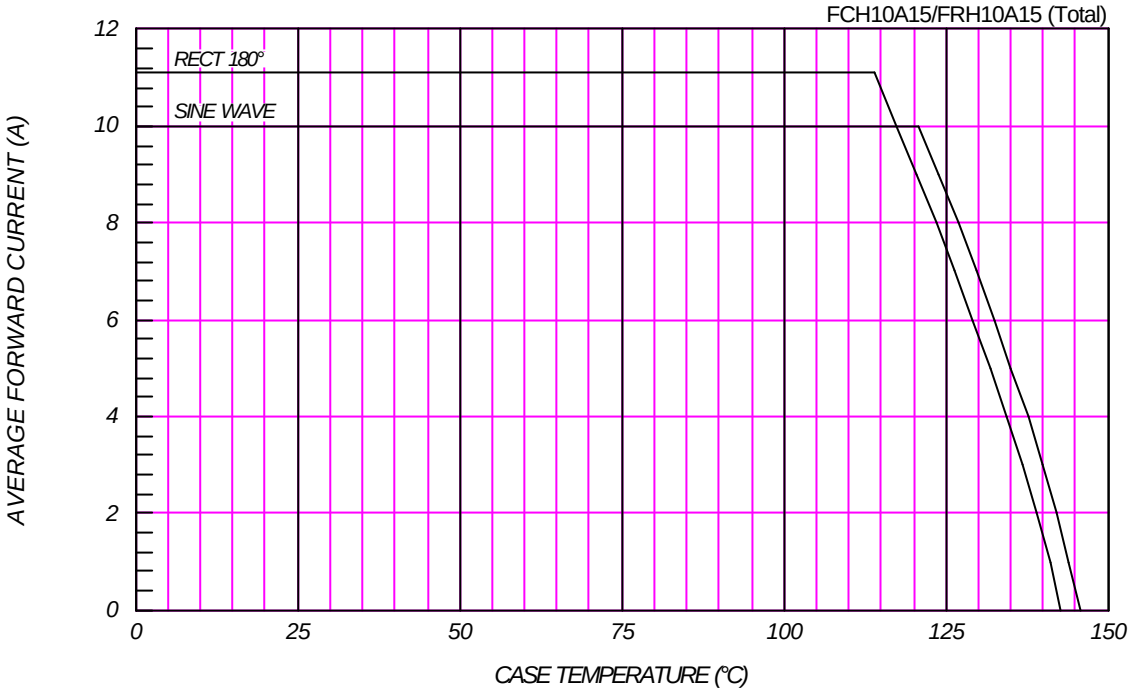
AVERAGE REVERSE POWER DISSIPATION





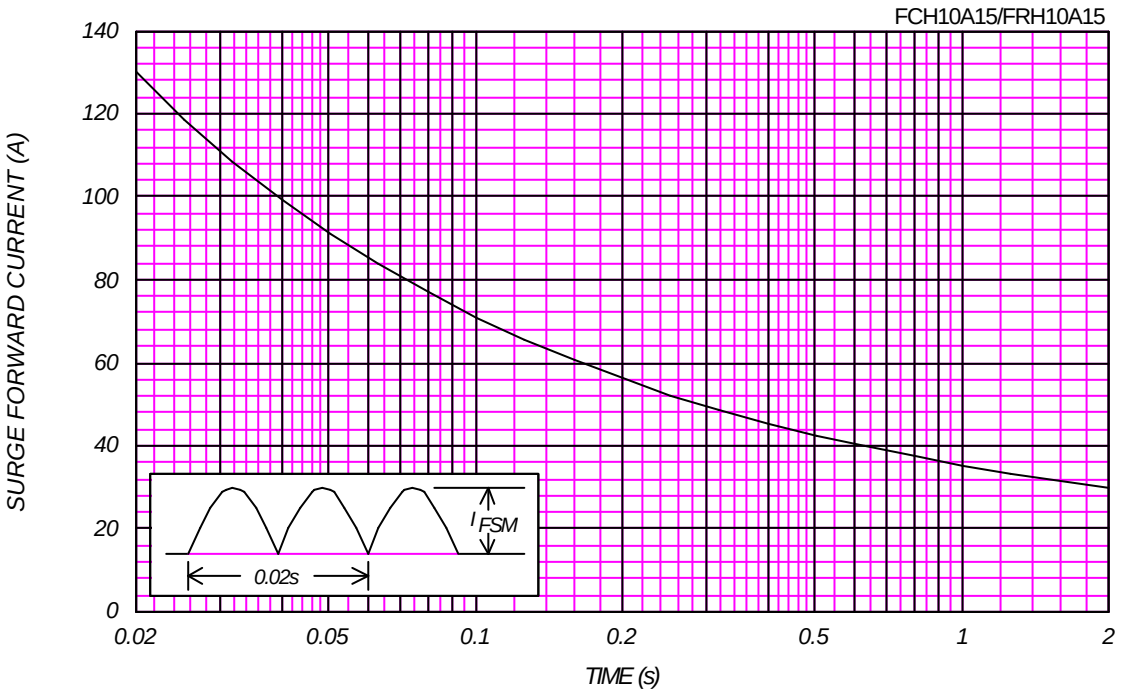
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

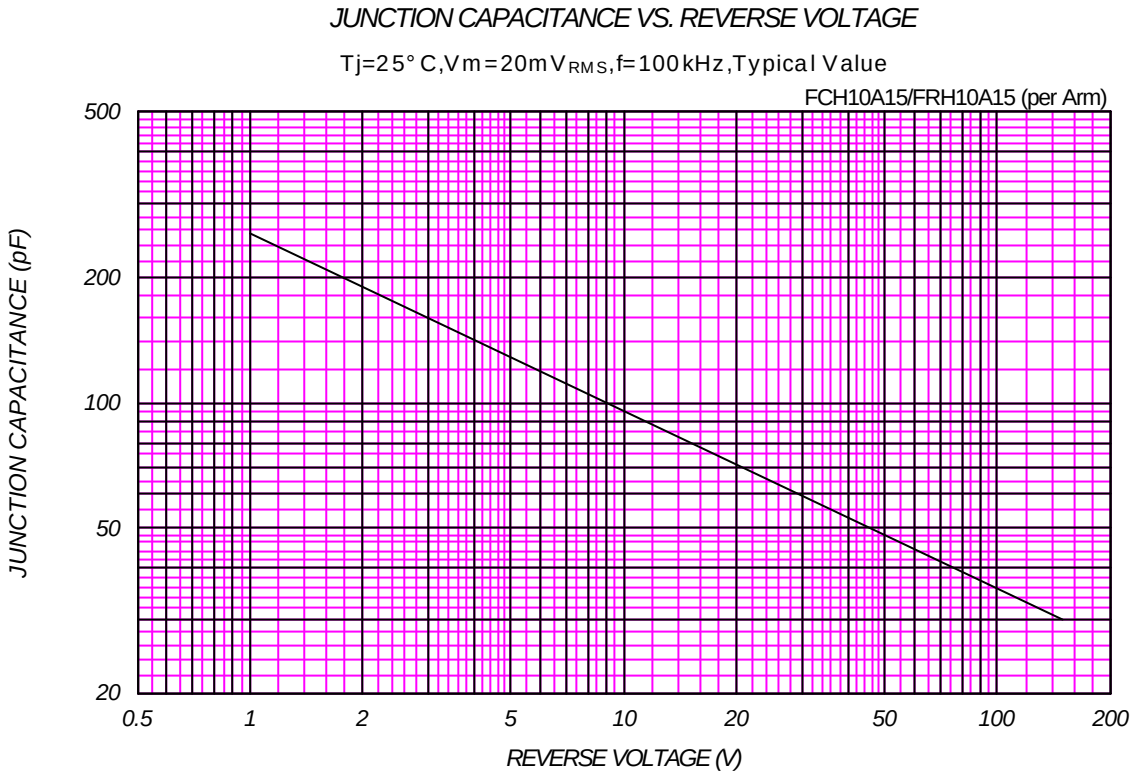
V_{RM}=150V



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
FCH10A15/FRH10A15 (per Arm)
JUNCTION CAPACITANCE (pF)
500
200
100
50
20
0.5
1
2
5
10
20
50
100
200
REVERSE VOLTAGE (V)