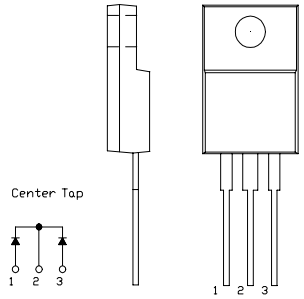
Nihon Inter Electronics Corporation

SBD Type : FCL20A015

OUTLINE DRAWING



FEATURES

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

Maximum Ratings

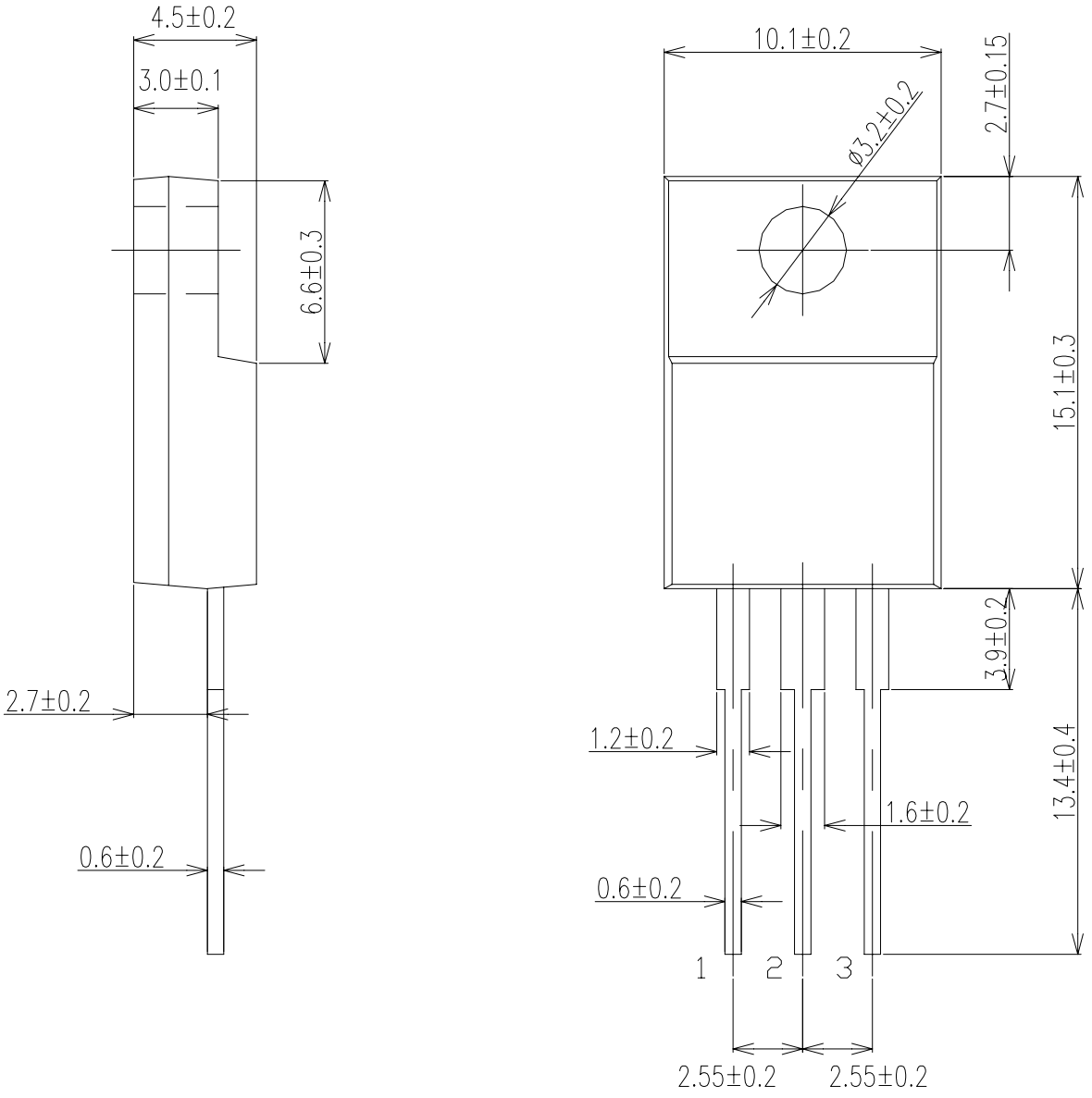
Approx Net Weight: 1.75g

Rating	Symbol	FCL20A015			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	15			V
Average Rectified Output Current	I_O	20	Tc=96℃	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 +125			℃
Storage Temperature Range	T_{stg}	-40 to +125			℃
Mounting torque	Ftor	recommended torque = 0.5			N•m

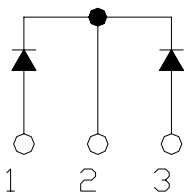
Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	Tj= 25℃, V_{RM}= V_{RRM} per arm	-	-	10	mA
Peak Forward Voltage	V_{FM}	Tj= 25℃, I_{FM}= 10 A per arm	-	-	0.4	V
Thermal Resistance	Rth(j-c)	Junction to Case	-	-	1.5	℃/W
	Rth(c-f)	Cace to Fin	-	-	1.5	℃/W

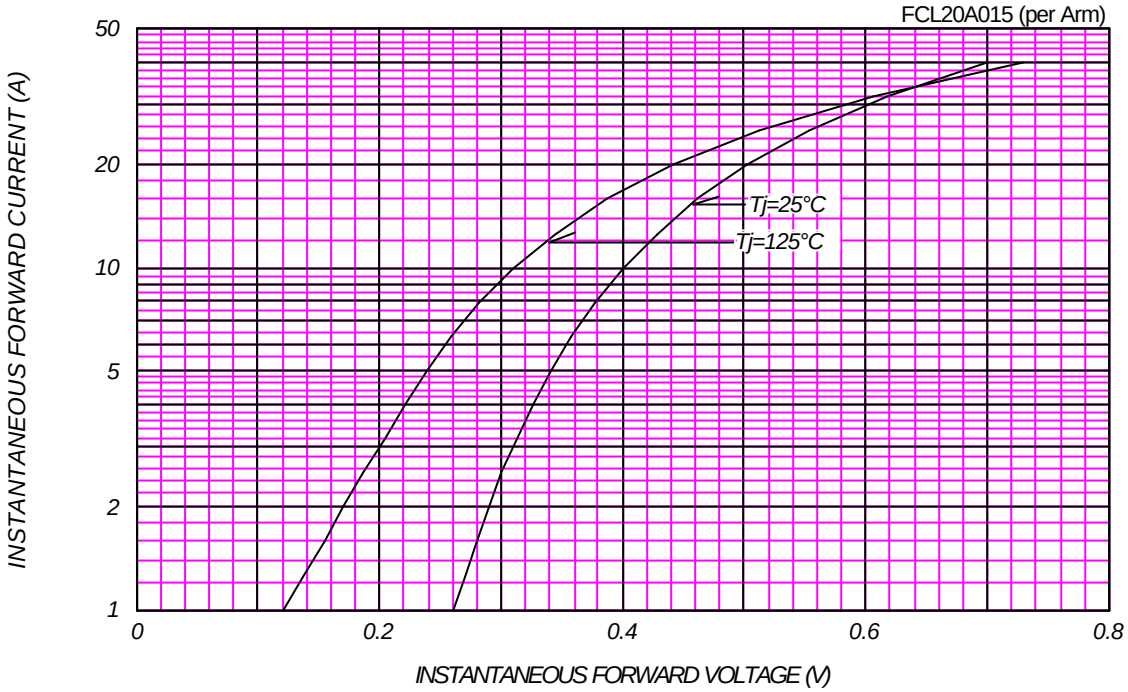
FCL_A_ OUTLINE DRAWING (Dimensions in mm)

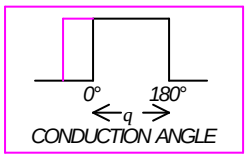


Center Tap

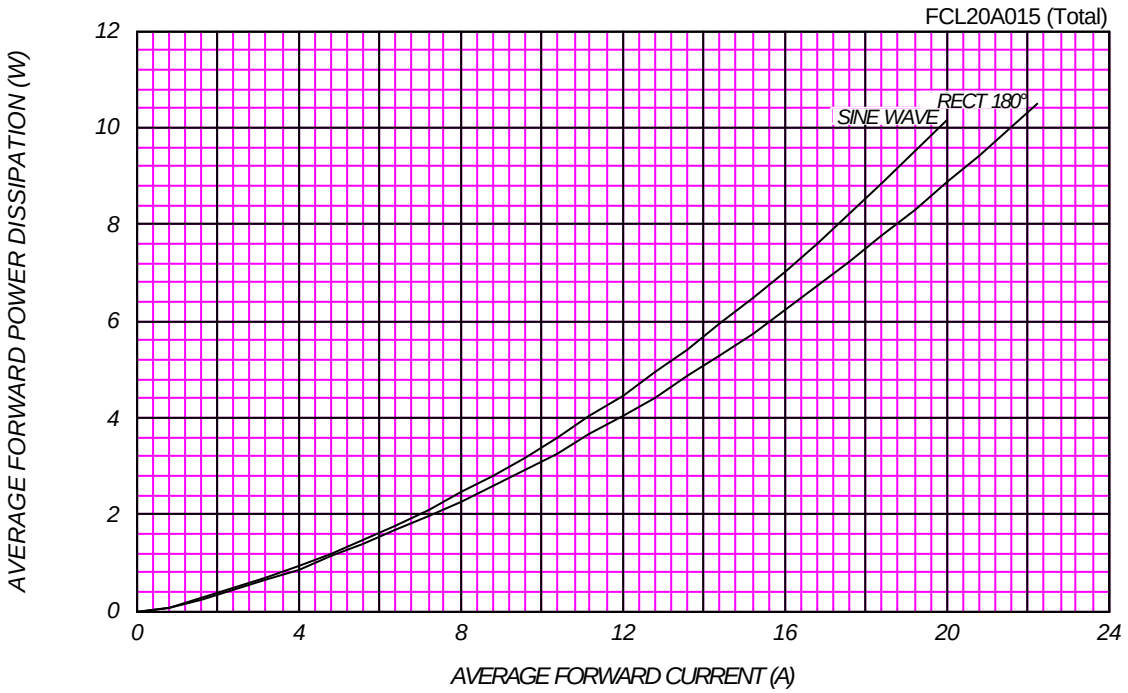


FORWARD CURRENT VS. VOLTAGE



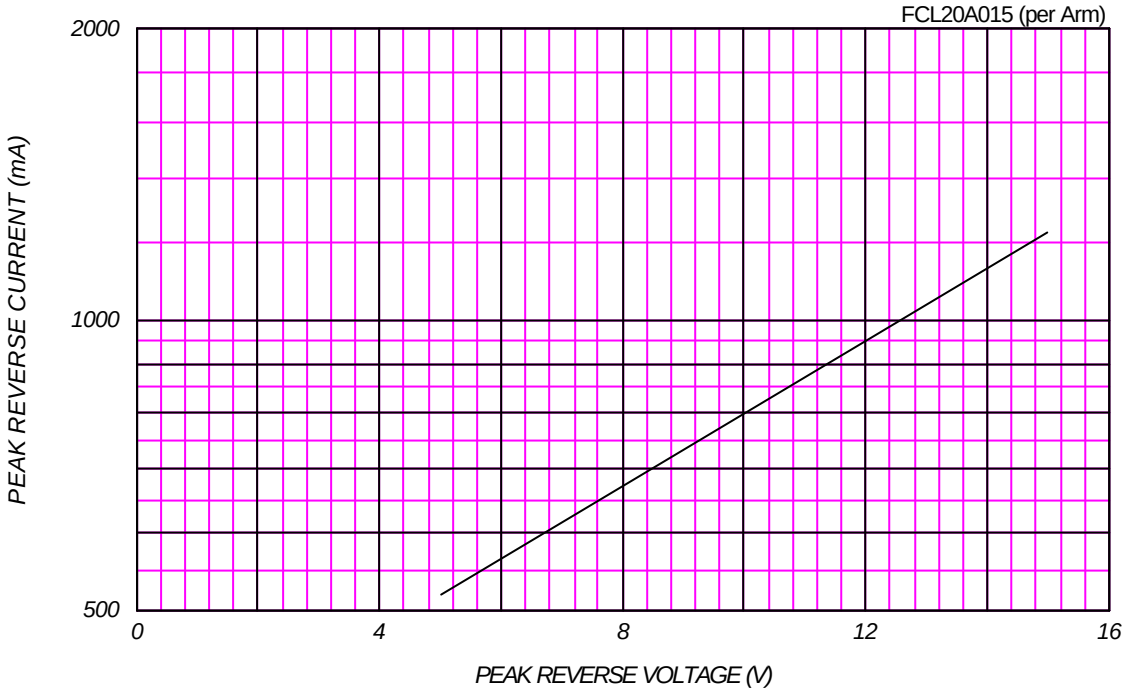


AVERAGE FORWARD POWER DISSIPATION

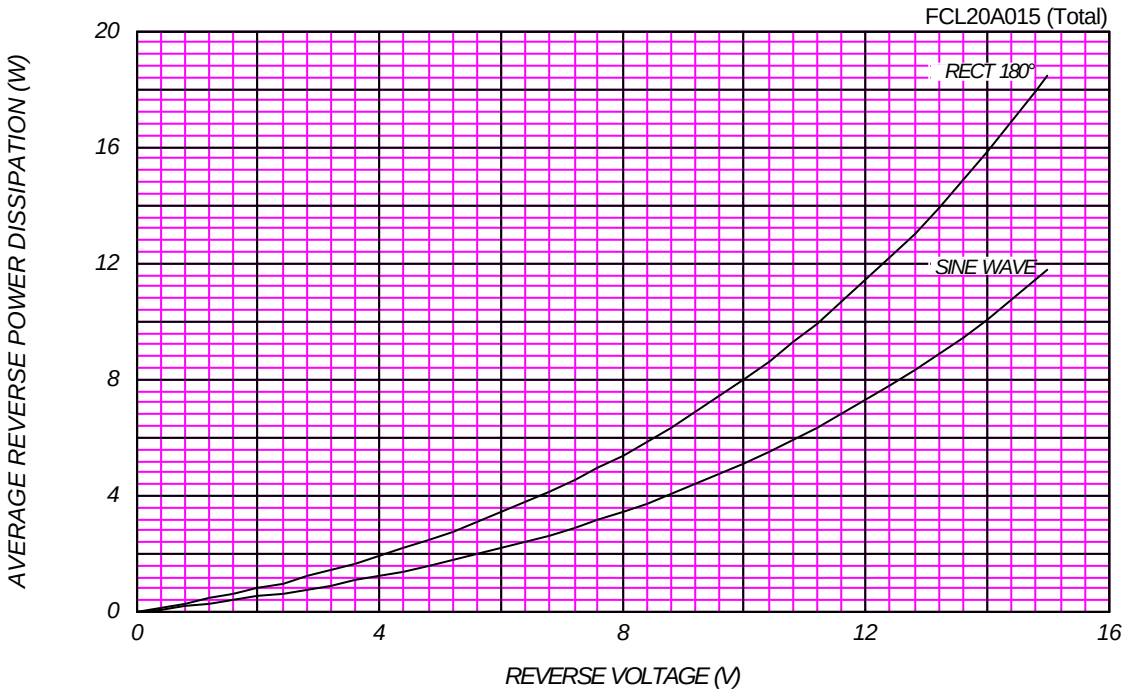


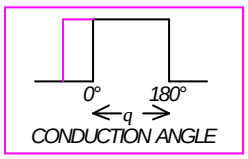
PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

Tj= 125 °C



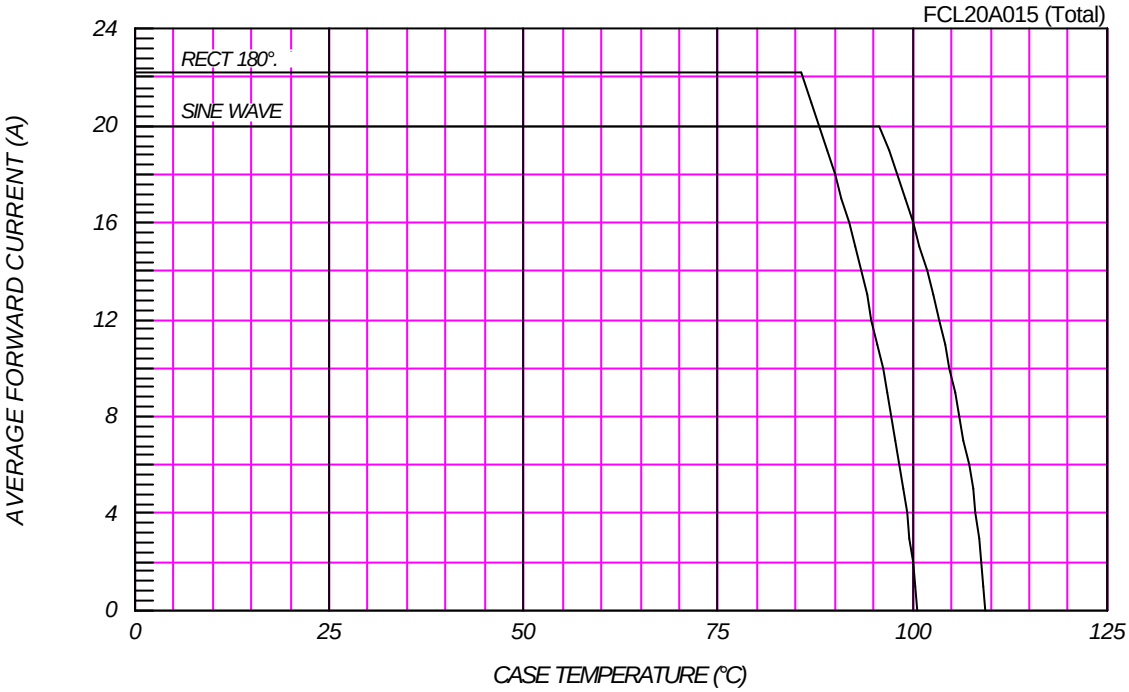
AVERAGE REVERSE POWER DISSIPATION





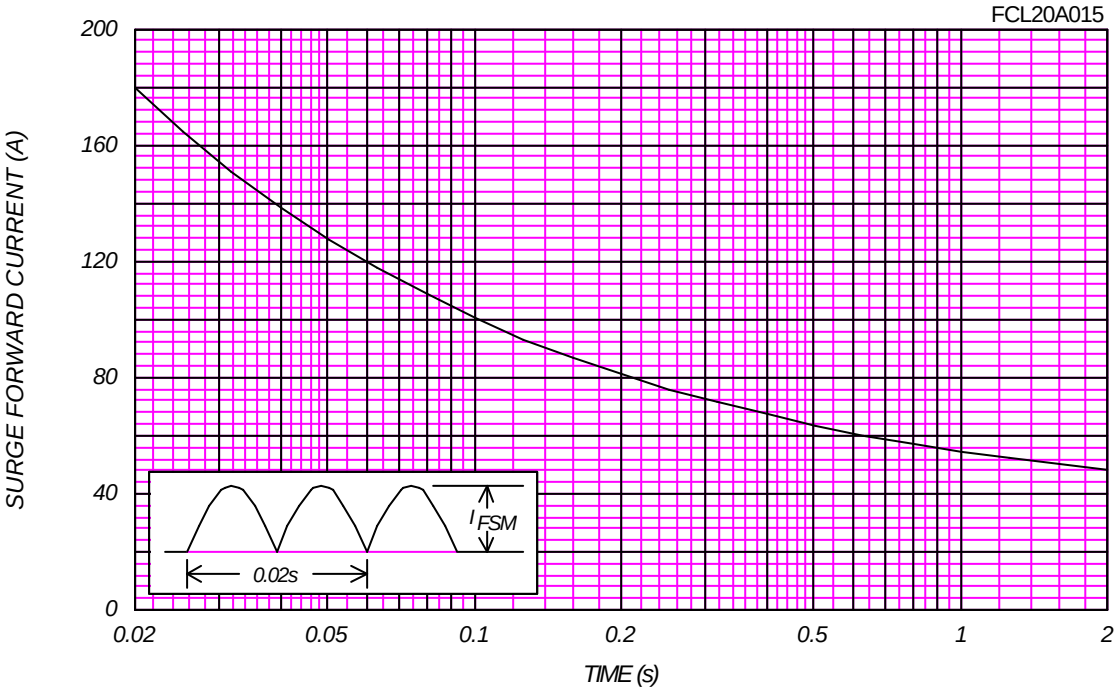
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

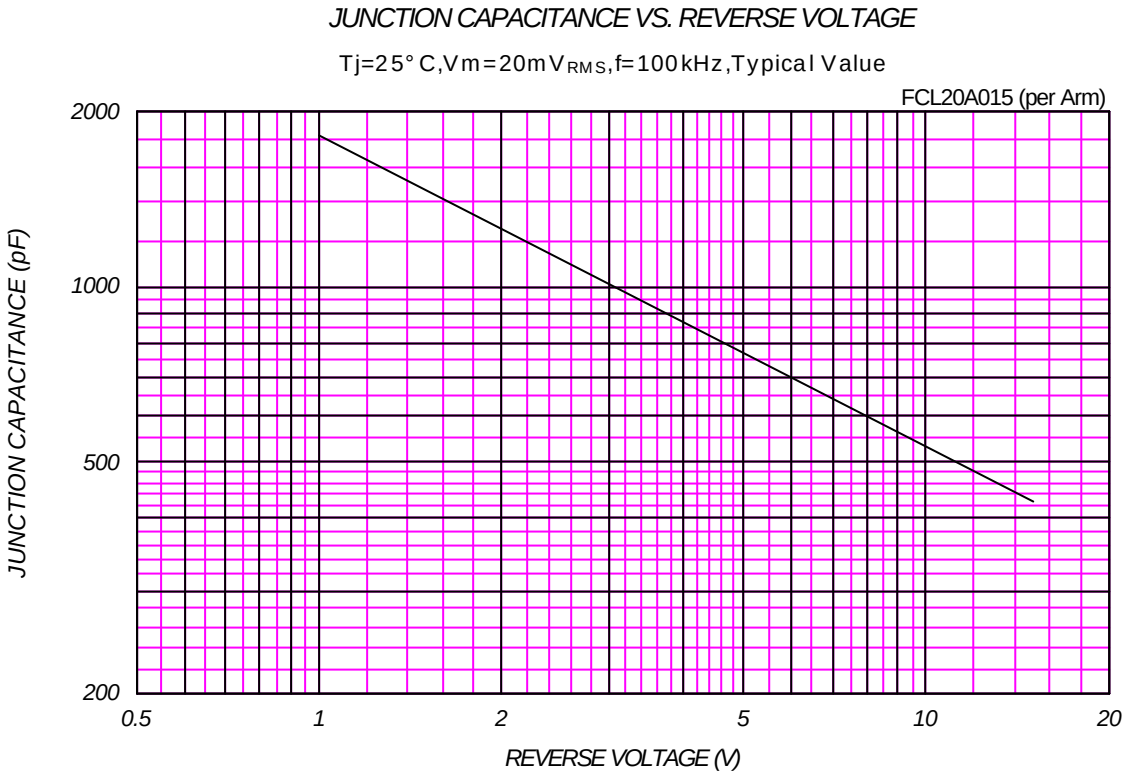
V_{RM}=15 V



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
FCL20A015 (per Arm)
2000
1000
500
200
JUNCTION CAPACITANCE (pF)
0.5
1
2
5
10
20
REVERSE VOLTAGE (V)