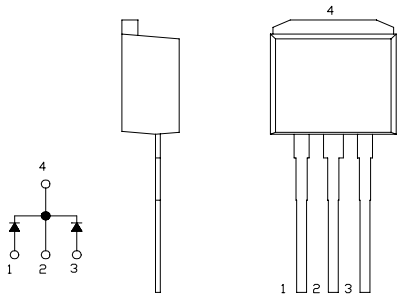
Nihon Inter Electronics Corporation

SBD Type : TCH20A15-11A

OUTLINE DRAWING

FEATURES

*Tabless TO-220
Packaged in 24mm Tape and Reel
*Dual Diodes – Cathode Common
*Low Forward Voltage Drop
*High Surge Capability
*Tj=150 ℃ operation



Maximum Ratings

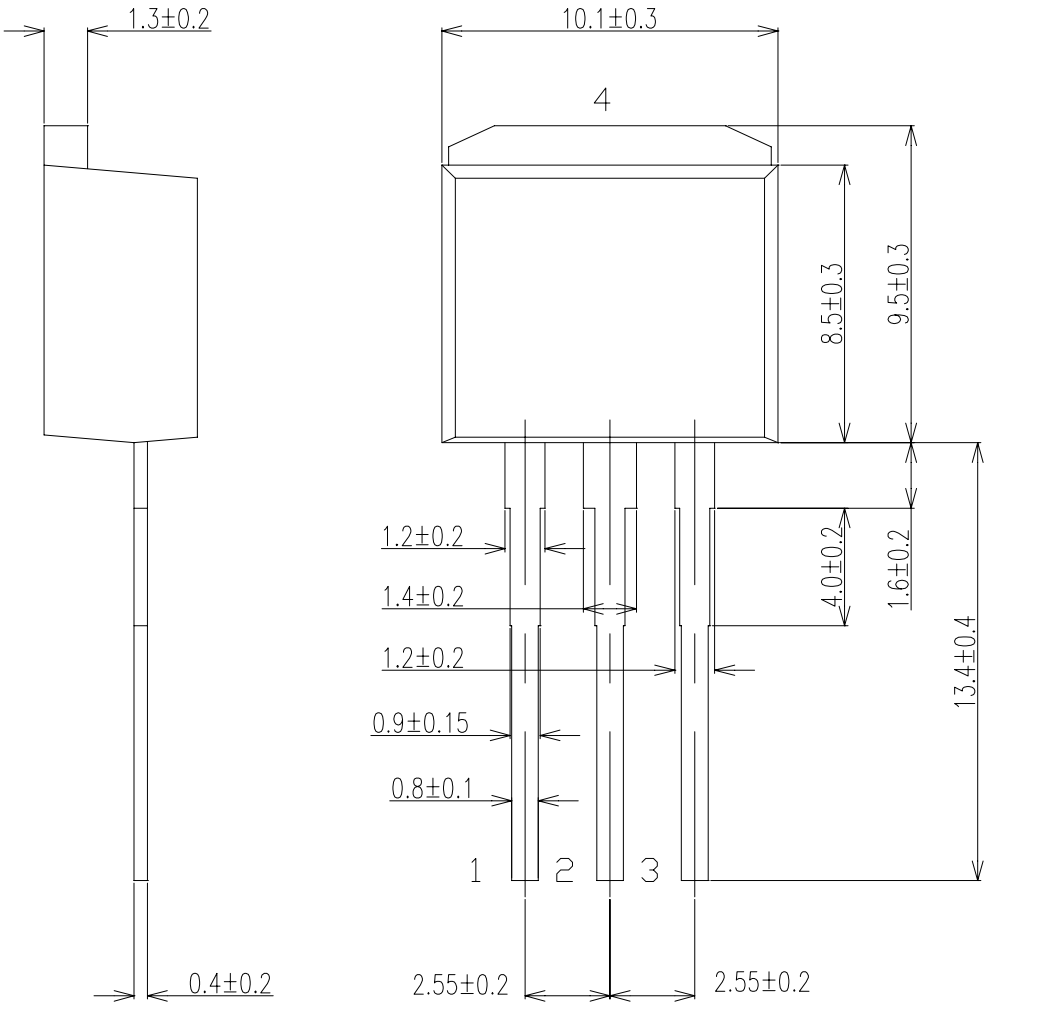
Approx Net Weight: 1.45g

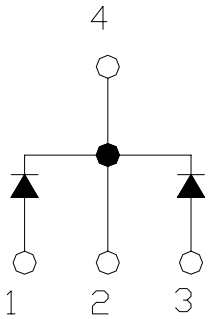
Rating	Symbol	TCH20A15-11A			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	150			V
Average Rectified Output Current	I_O	20	Tc=121℃	50 Hz Full Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	22.2			A
Surge Forward Current	I_{FSM}	180	50Hz Full Sine Wave ,1cycle Non-repetitive		A
Operating JunctionTemperature Range	T_{jw}	-40 to +150			℃
Storage Temperature Range	T_{stg}	-40 to +150			℃

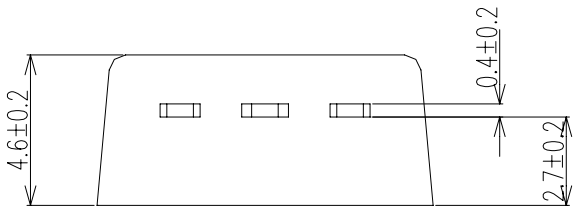
Electrical • Thermal Characteristics

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	-	-	0.9	V
Thermal Resistance (Junction to Case)	Rth(j-c)	Junction to Case	-	-	1.5	℃ /W

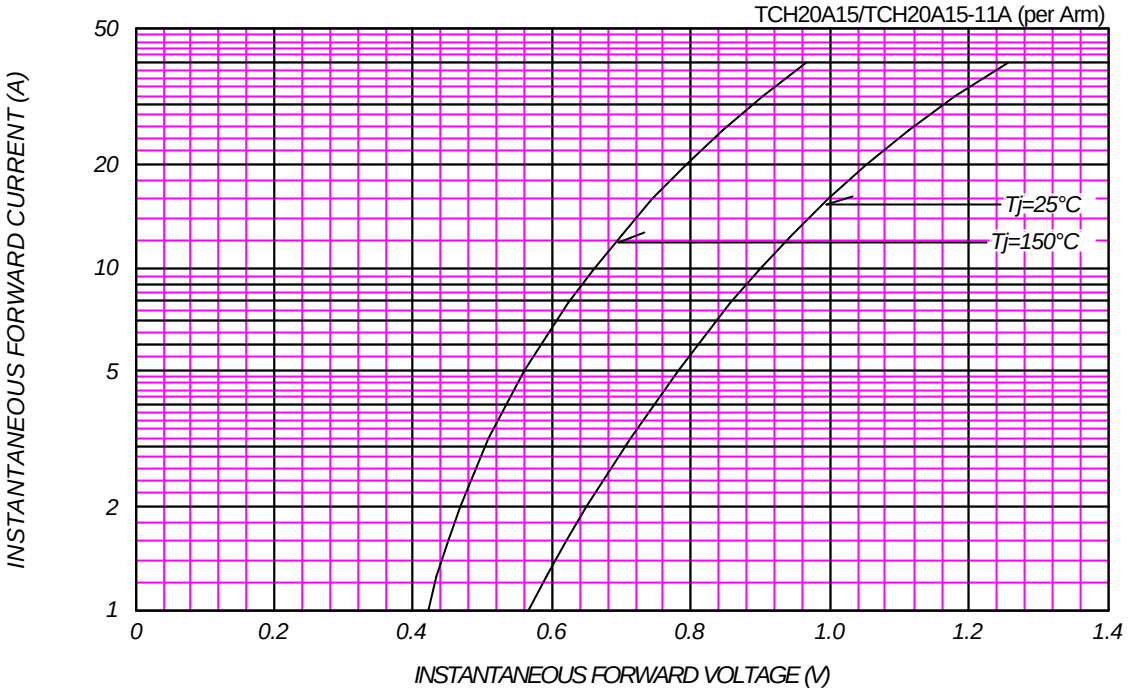
C_T_ 11A OUTLINE DRAWING (Dimensions in mm)

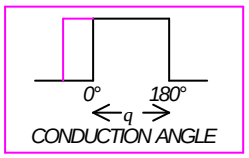




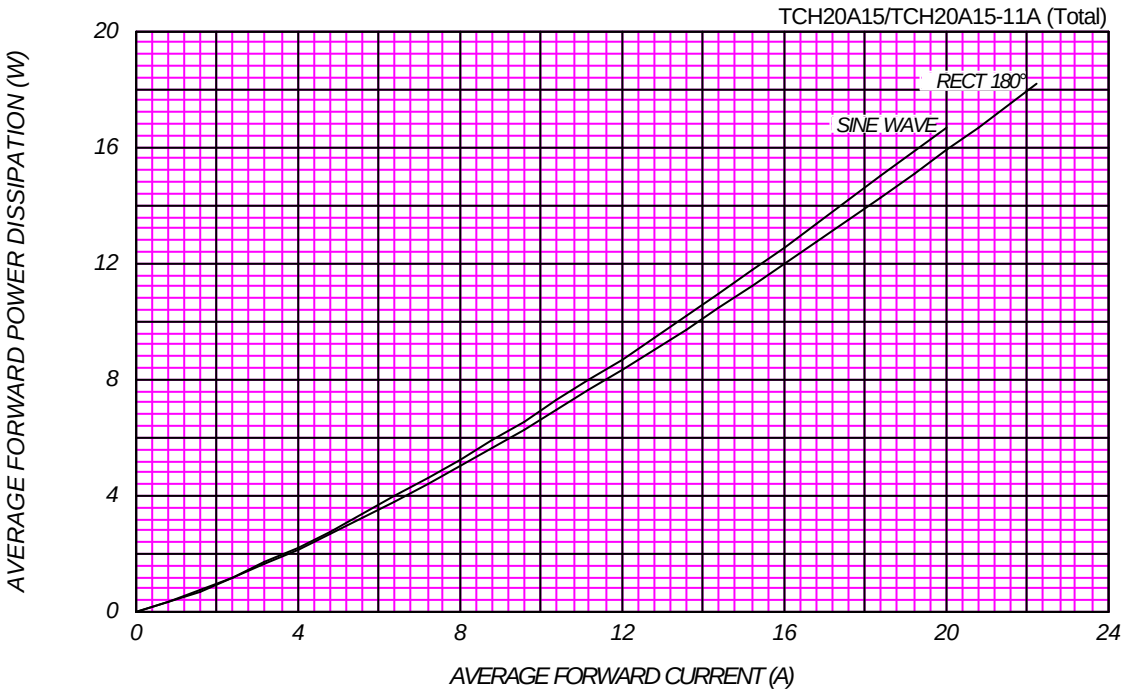


FORWARD CURRENT VS. VOLTAGE

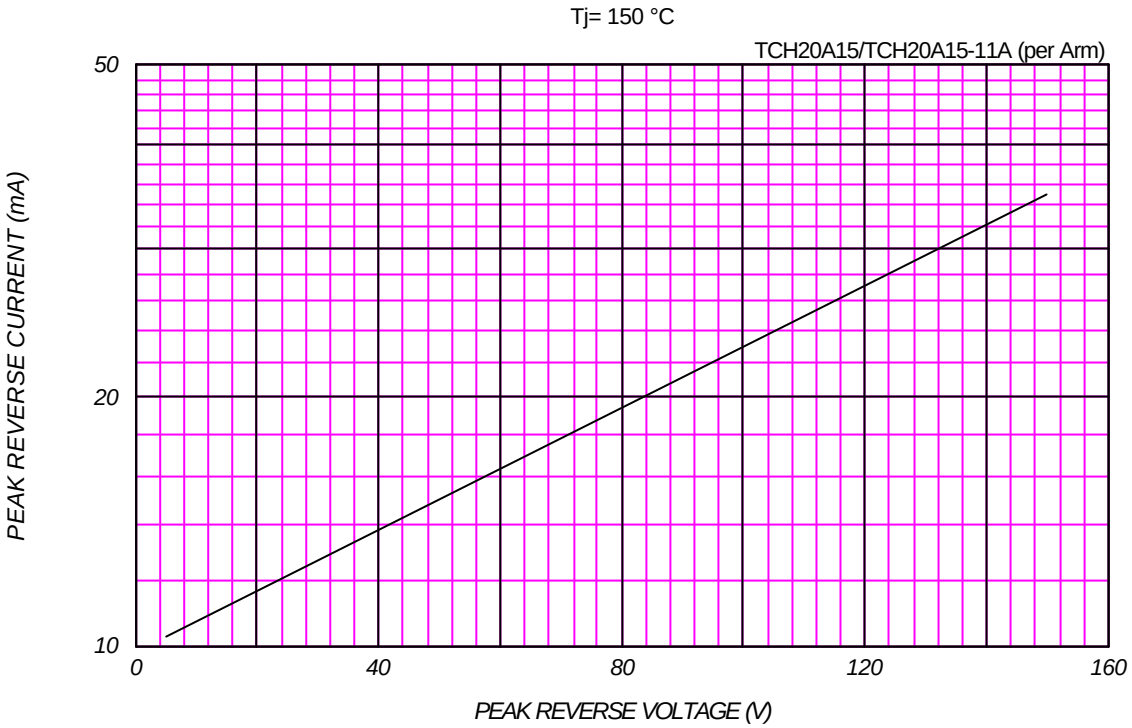




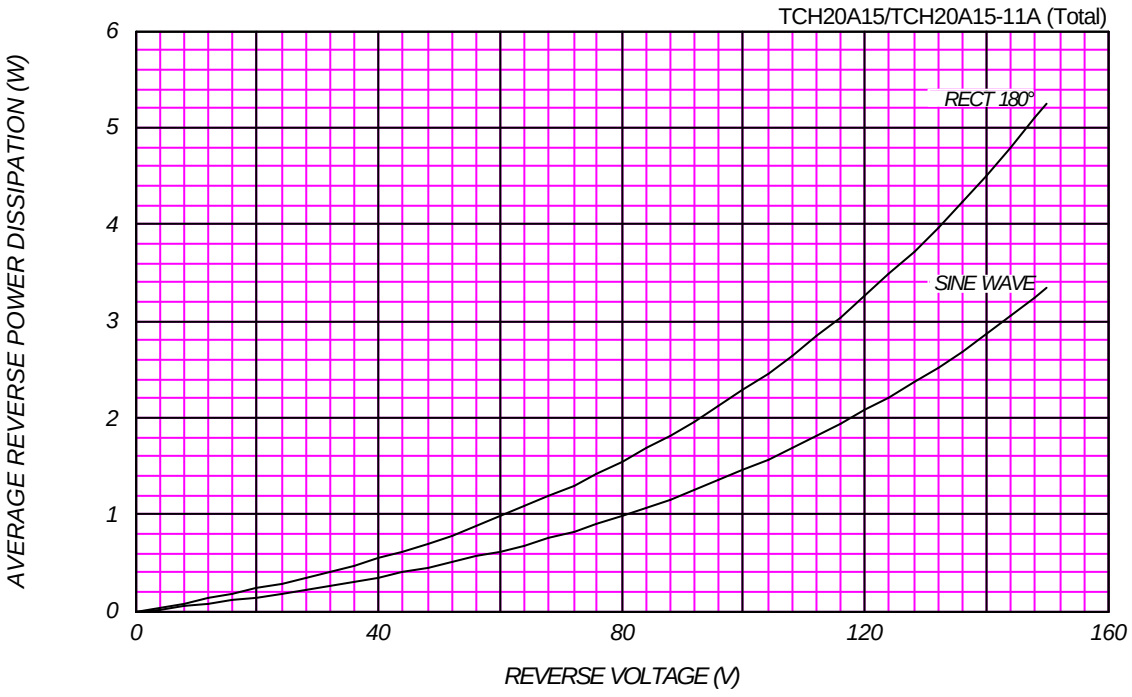
AVERAGE FORWARD POWER DISSIPATION

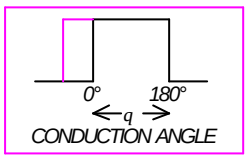


PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE



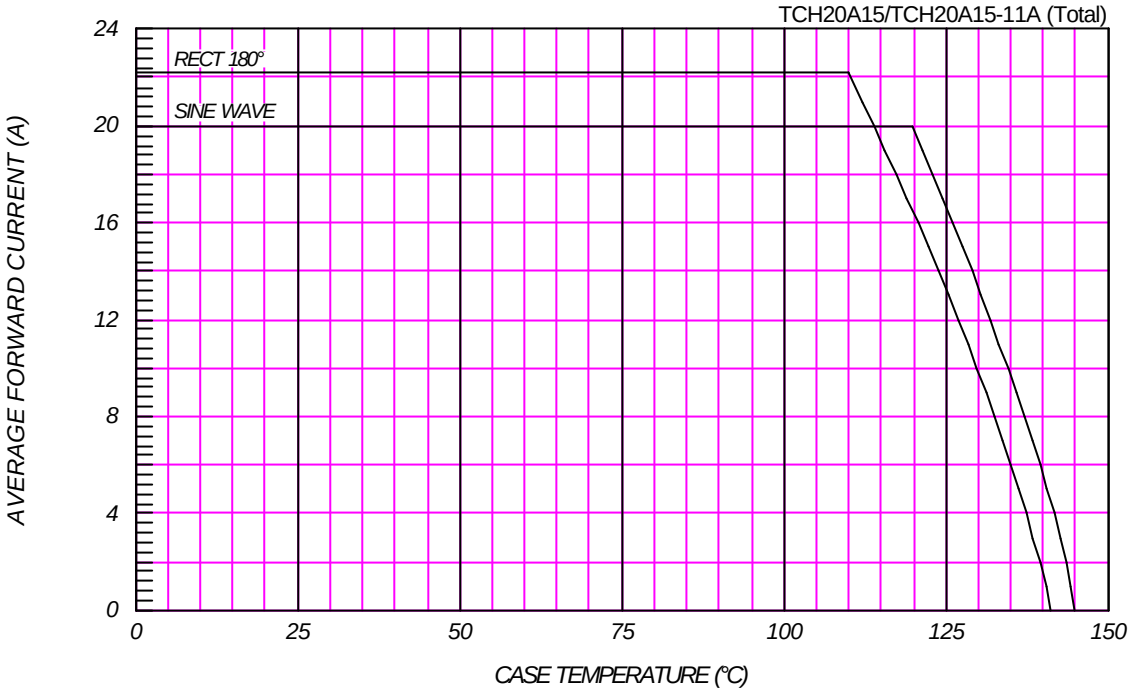
AVERAGE REVERSE POWER DISSIPATION





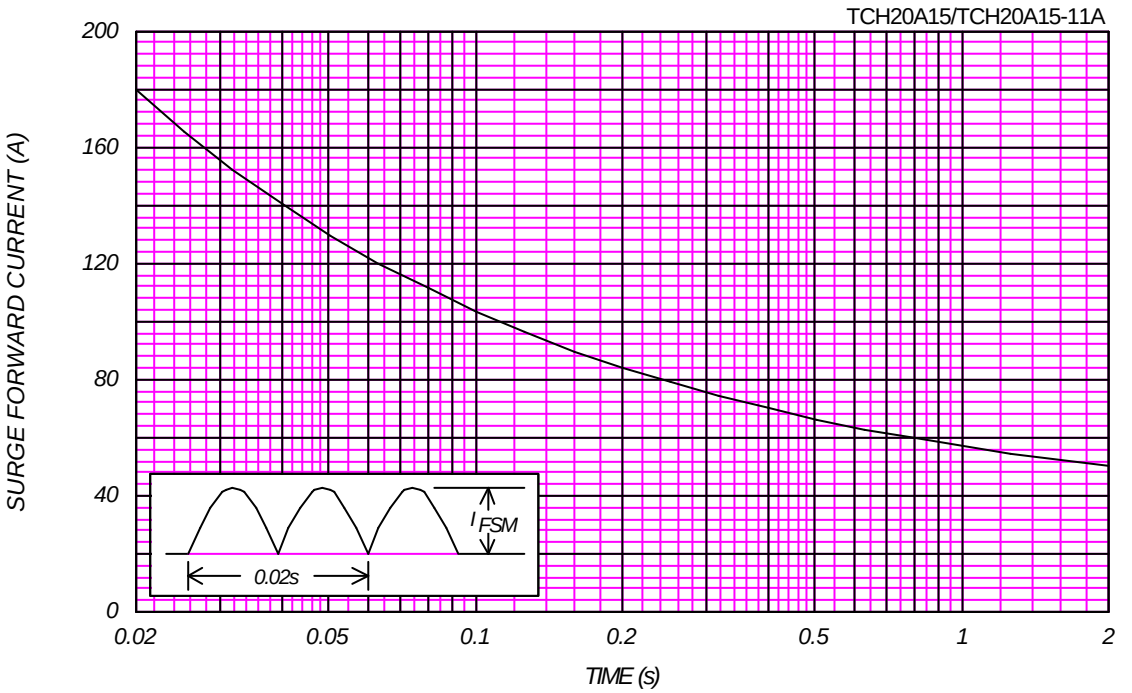
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

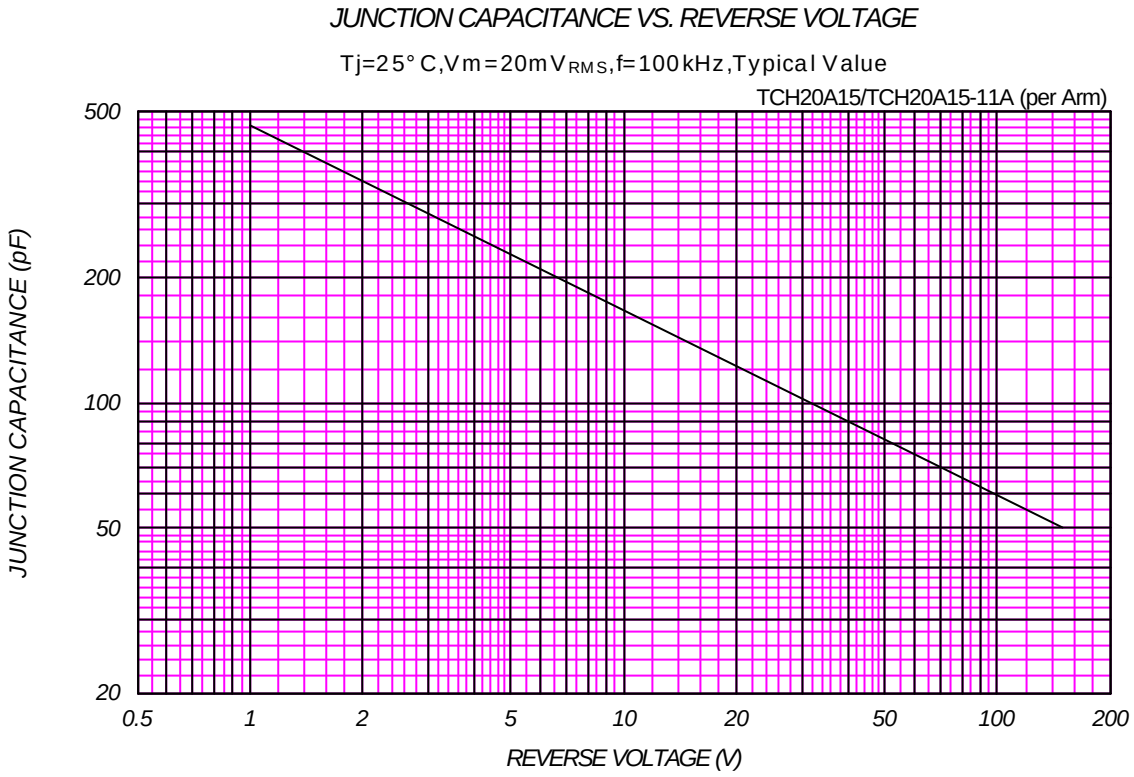
V_{RM}=150V



SURGE CURRENT RATINGS

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




JUNCTION CAPACITANCE VS. REVERSE VOLTAGE
Tj=25°C,Vm=20mVRMS,f=100kHz,Typical Value
TCH20A15/TCH20A15-11A (per Arm)
500
200
100
50
20
JUNCTION CAPACITANCE (pF)
0.5
1
2
5
10
20
50
100
200
REVERSE VOLTAGE (V)