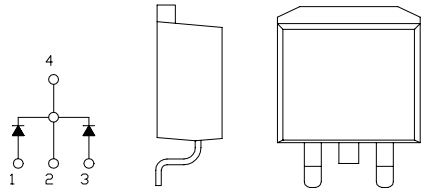
Nihon Inter Electronics Corporation

SBD Type : C20T03QLH

OUTLINE DRAWING

FEATURES

*SQUARE-PAK TO-263AB(SMD)
Packaged in 24mm Tape and Reel
*Dual Diodes – Cathode Common
*Low Forward Voltage Drop
*High Surge Capability
*Tj=150 ℃ operation



Maximum Ratings

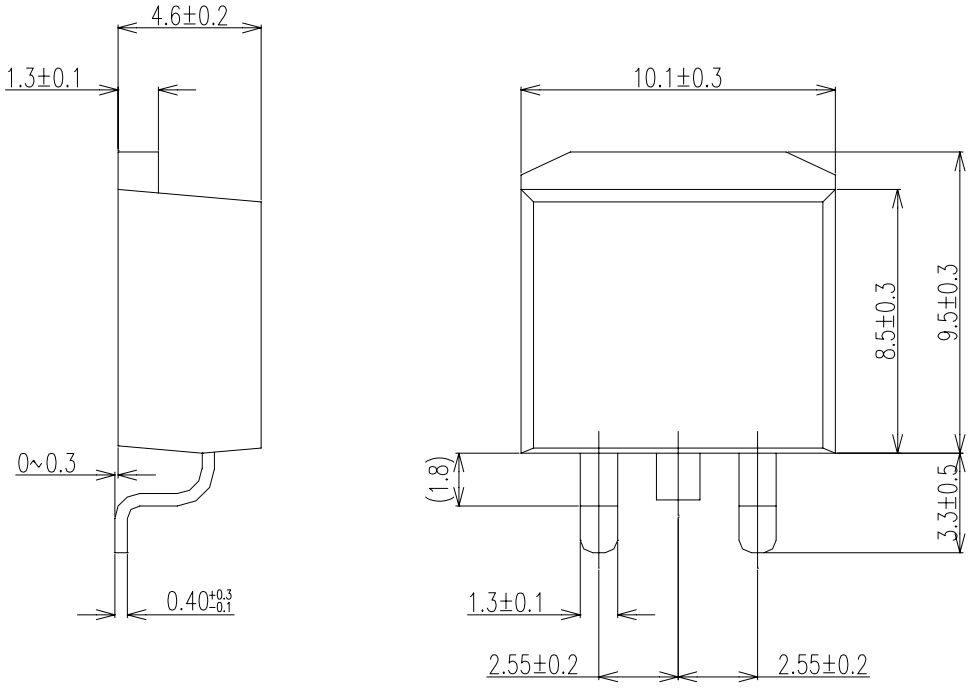
Approx Net Weight: 1.4g

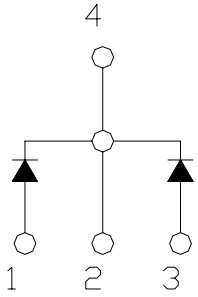
Rating	Symbol	C20T03QLH			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30			V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	35(pulse width ≤ 1μs duty ≤ 1/50)			V
Average Rectified Output Current	I_O	20	Tc=128℃	50 Hz Full Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	22.2			A
Surge Forward 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

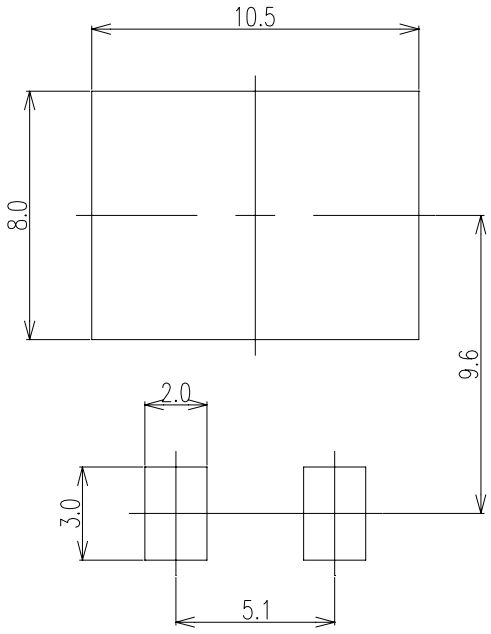
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	Tj= 25℃, V_{RM}= V_{RRM} per arm	-	-	1	mA
Peak Forward Voltage	V_{FM}	Tj= 25℃, I_{FM}= 10 A per arm	-	-	0.54	V
Thermal Resistance	$Rth_{(j-c)}$	Junction to Case	-	-	1.5	℃/W

C_T_ OUTLINE DRAWING (Dimensions in mm)

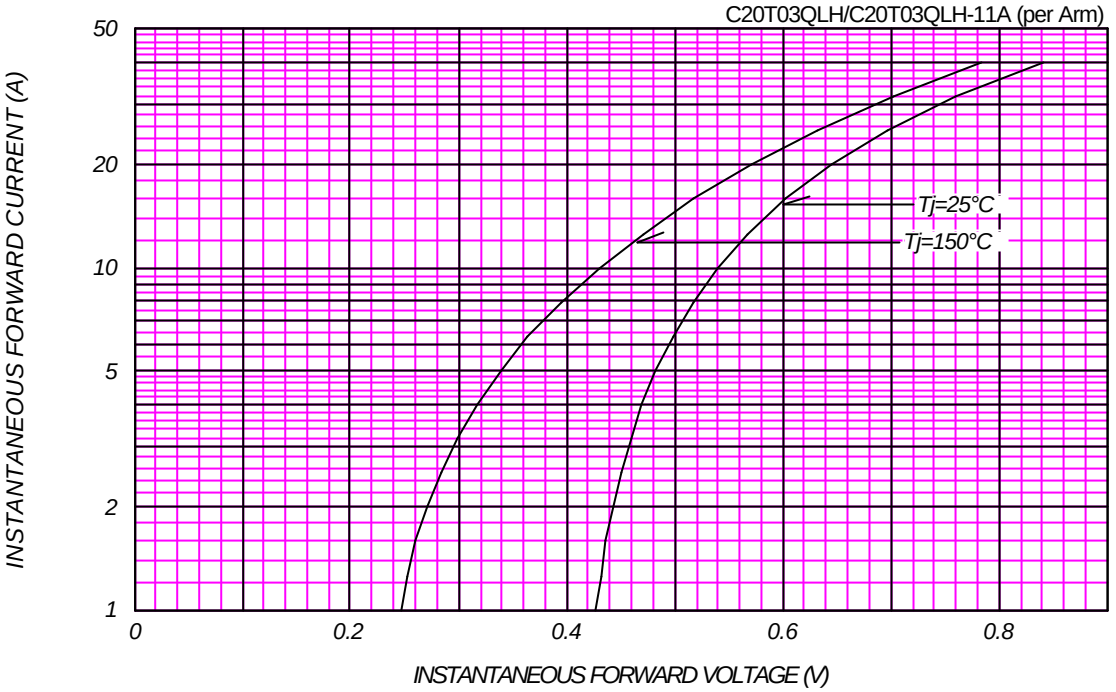




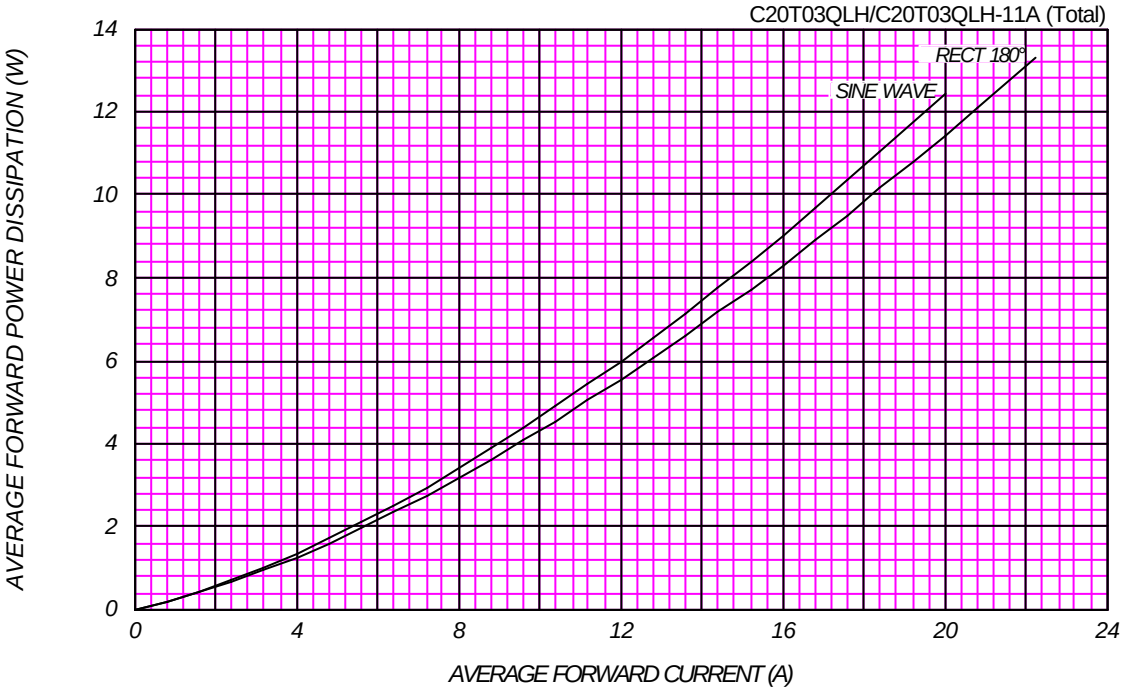
SOLDERING PAD



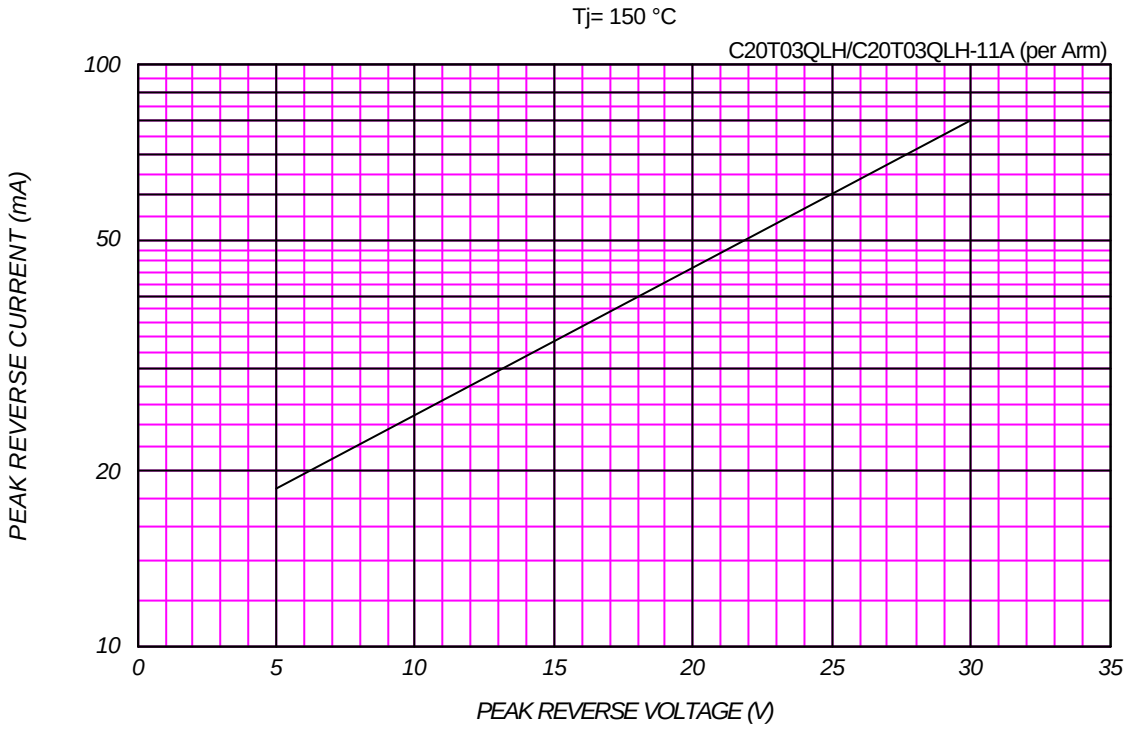
FORWARD CURRENT VS. VOLTAGE



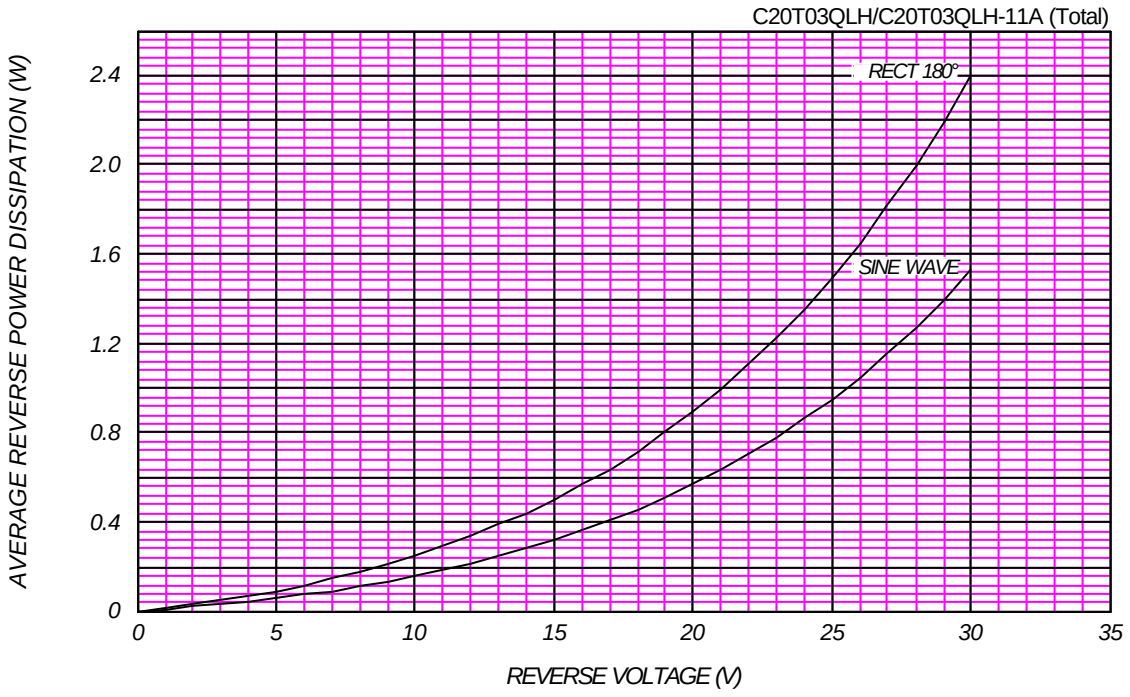
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE



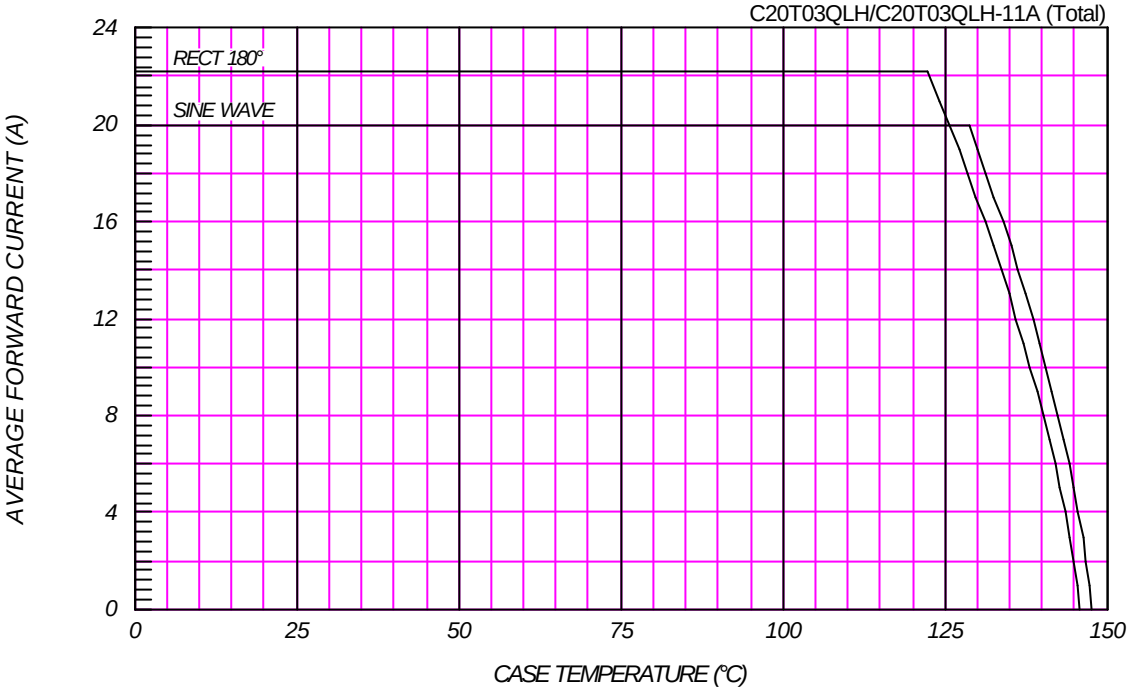
AVERAGE REVERSE POWER DISSIPATION



AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

V_{RM}=30 V

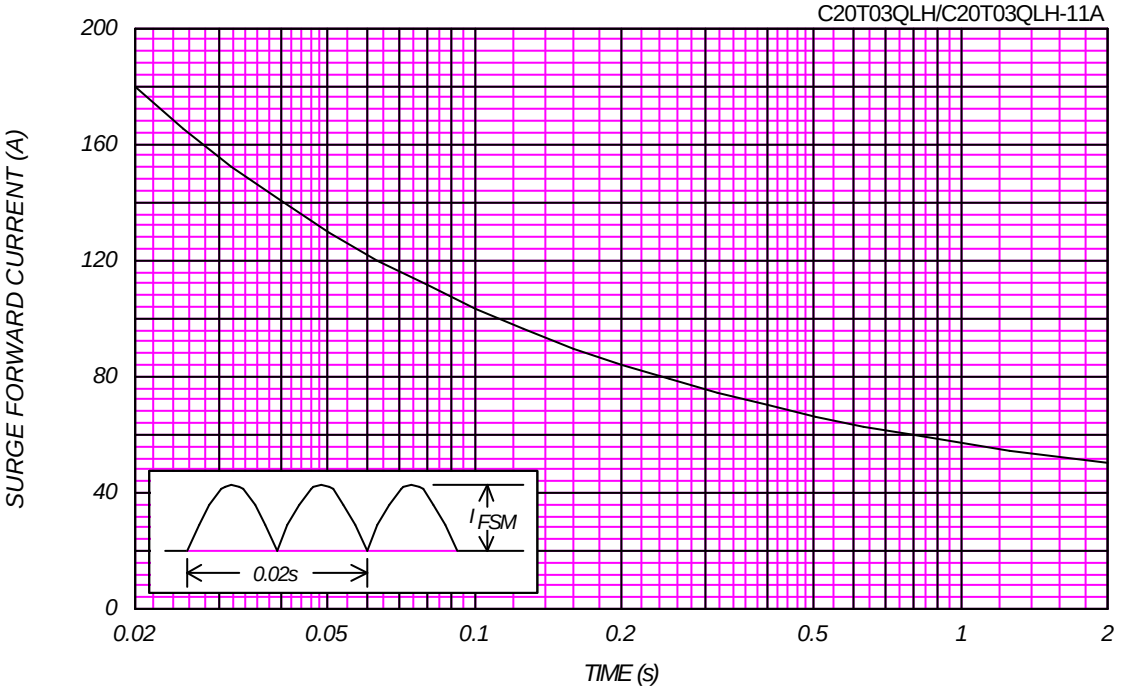
C20T03QLH/C20T03QLH-11A (Total)

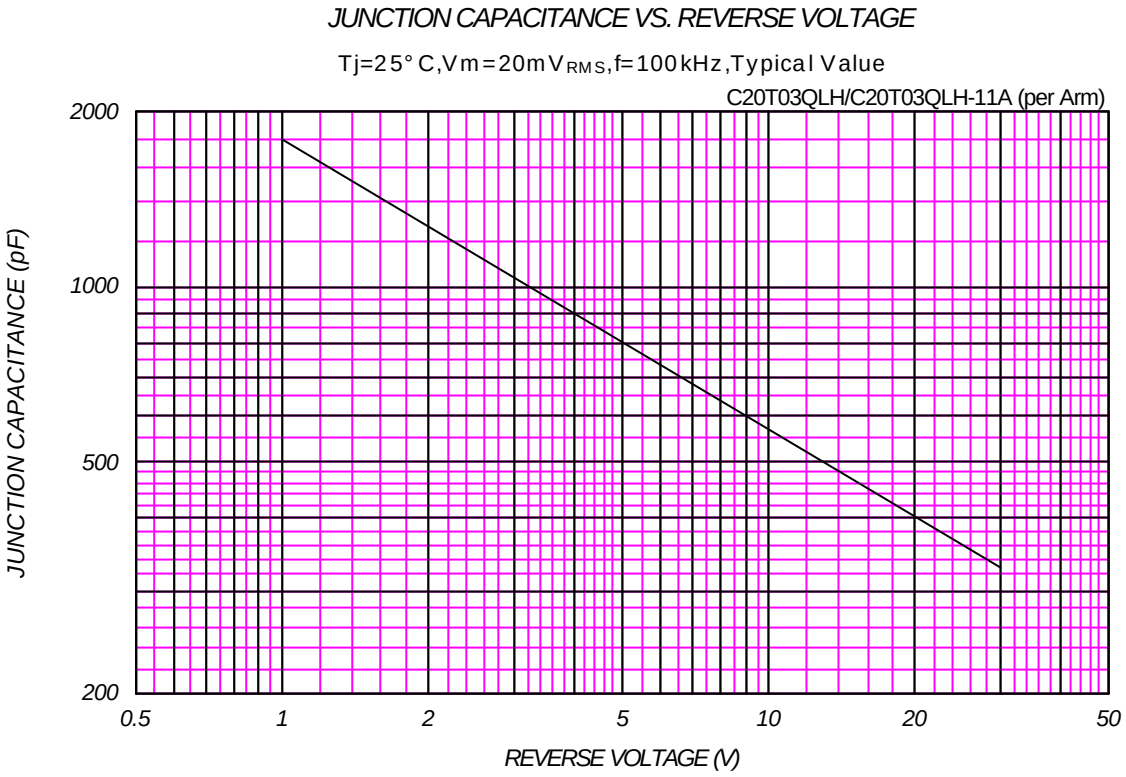


SURGE CURRENT RATINGS

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

C20T03QLH/C20T03QLH-11A




JUNCTION CAPACITANCE VS. REVERSE VOLTAGE
Tj=25° C,Vm=20mVRMS,f=100kHz,Typical Value
C20T03QLH/C20T03QLH-11A (per Arm)
2000
1000
500
200
JUNCTION CAPACITANCE (pF)
0.5
1
2
5
10
20
50
REVERSE VOLTAGE (V)