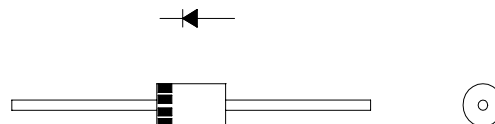


SBD Type : 31DQ03L

FEATURES

- * Extremely Low Forward Voltage Drop
- * Low Power Loss, High Efficiency
- * High Surge Capability
- * 30volts trough 100volts Types Available

OUTLINE DRAWING



Maximum Ratings

Approx Net Weight:1.18g

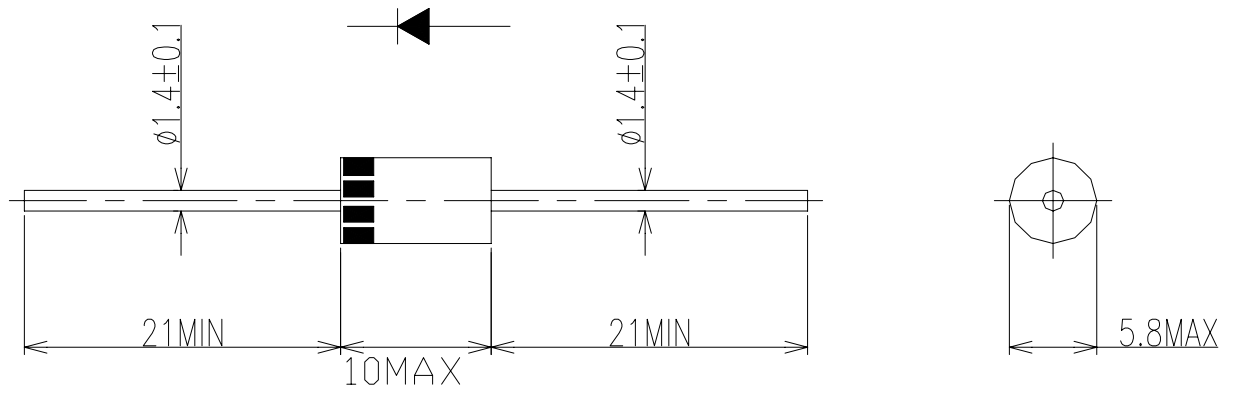
Rating		Symbol	31DQ03L			Unit
Repetitive Peak Reverse Voltage		V _{RRM}	30			V
Average Rectified Output Current	Without Fin or P.C.Board	I _O	1.9	Ta=25℃	Half Sine Wave Resistive Load	A
	With Fin *1		3.0	Ta=53℃		
RMS Forward Current		I _{F(RMS)}	4.71			A
Surge Forward Current		I _{FSM}	120	Half Sine Wave,1cycle,Non-repetitive		A
Operating JunctionTemperature Range		T _{jw}	- 40 to + 150			℃
Storage Temperature Range		T _{stg}	- 40 to + 150			℃

Electrical • Thermal Characteristics

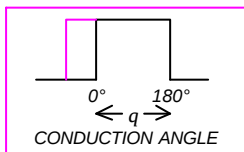
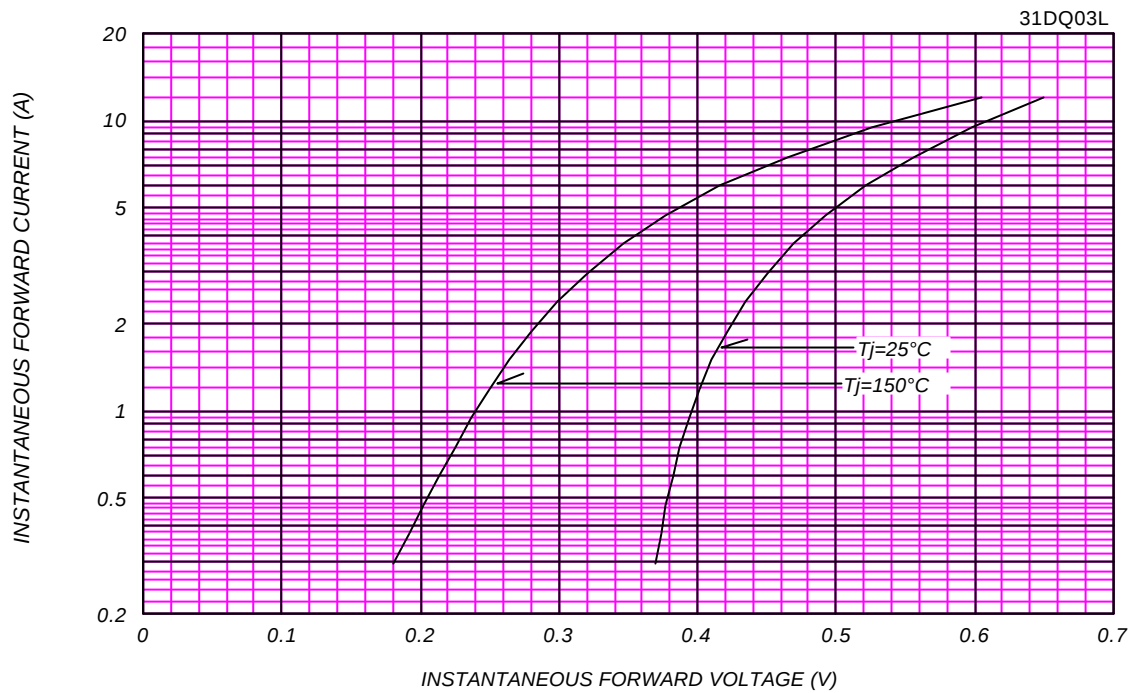
Characteristics	Symbol	Conditions	Min	Typ	Max	Unit
Peak Reverse Current	I_{RM}	$T_j= 25^{\circ}\text{C}, V_{RM}= V_{RRM}$	-	-	3	mA
Peak Forward Voltage	V_{FM}	$T_j= 25^{\circ}\text{C}, I_{FM}= 3 \text{ A}$	-	-	0.45	V
Thermal Resistance(Junction to Ambient)	$R_{th(j-a)}$	Without Fin or P.C.Board	-	-	80	$^{\circ}\text{C/W}$
		With Fin *1			34	

*1 :20x20x1t(mm) Copper plates, L=5mm, Both Sides

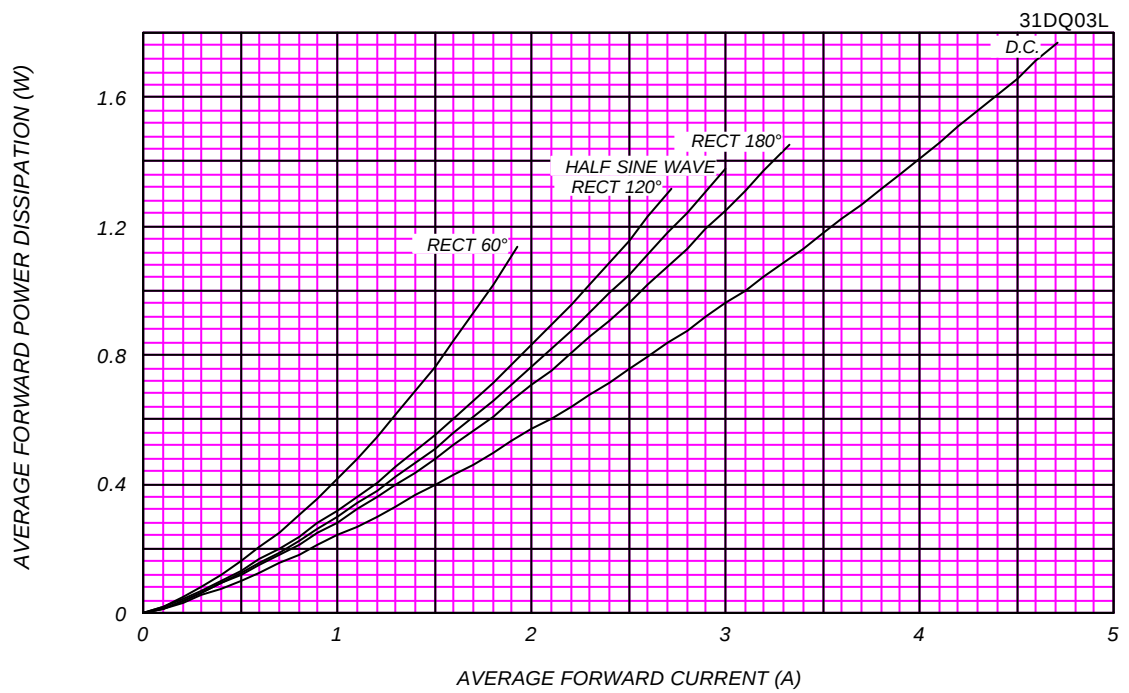
31DQ_ OUTLINE DRAWING (Dimensions in mm)



FORWARD CURRENT VS. VOLTAGE



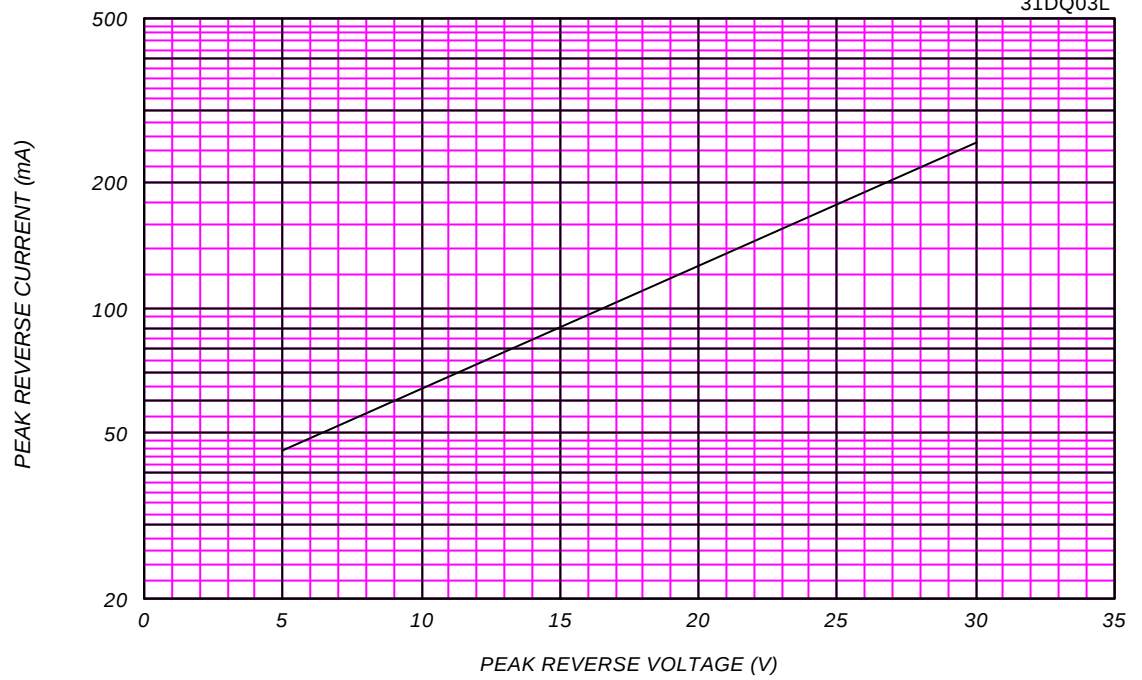
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

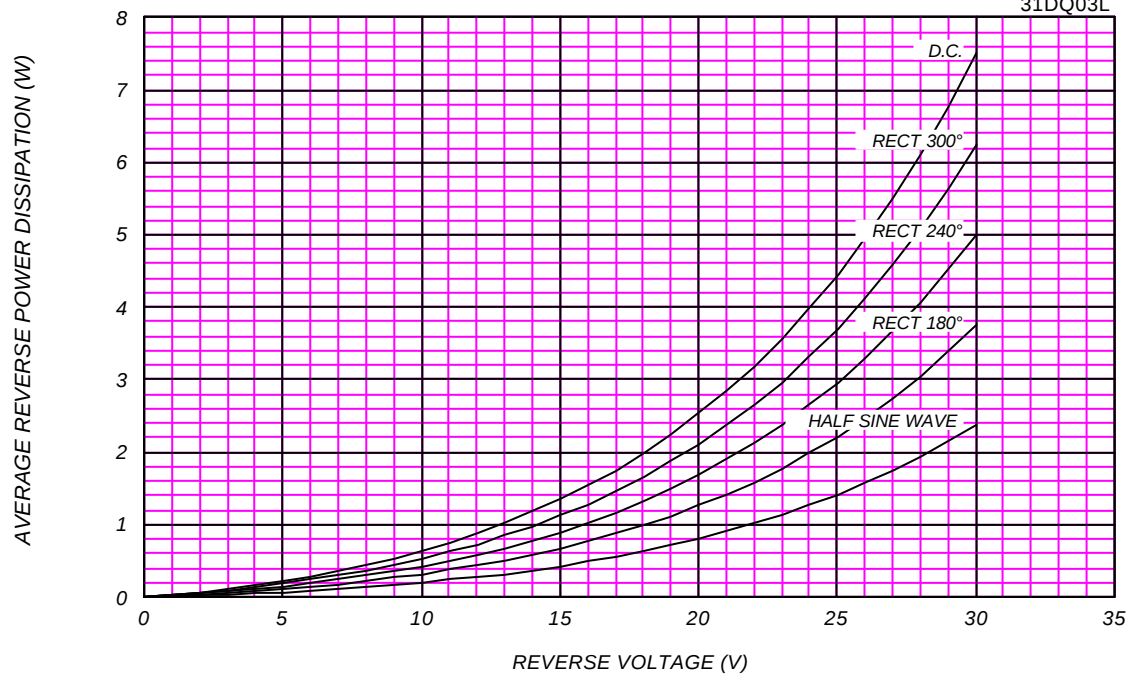
$T_j = 150^\circ\text{C}$

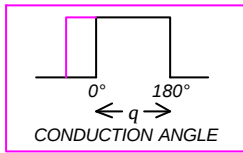
31DQ03L



AVERAGE REVERSE POWER DISSIPATION

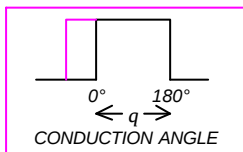
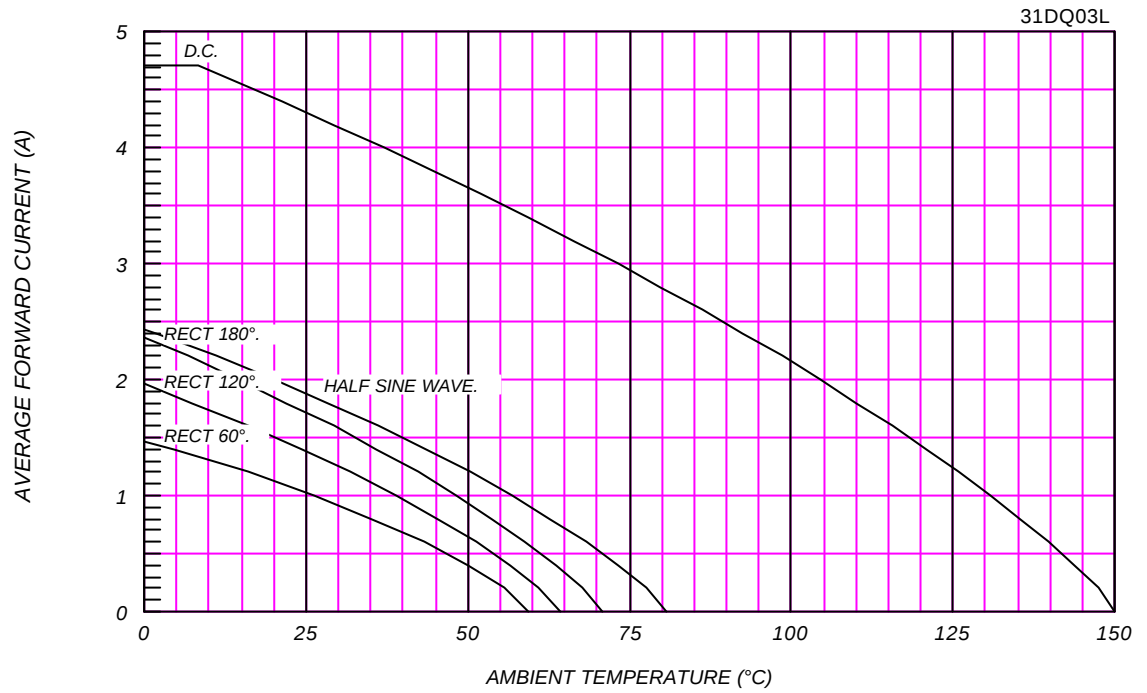
31DQ03L





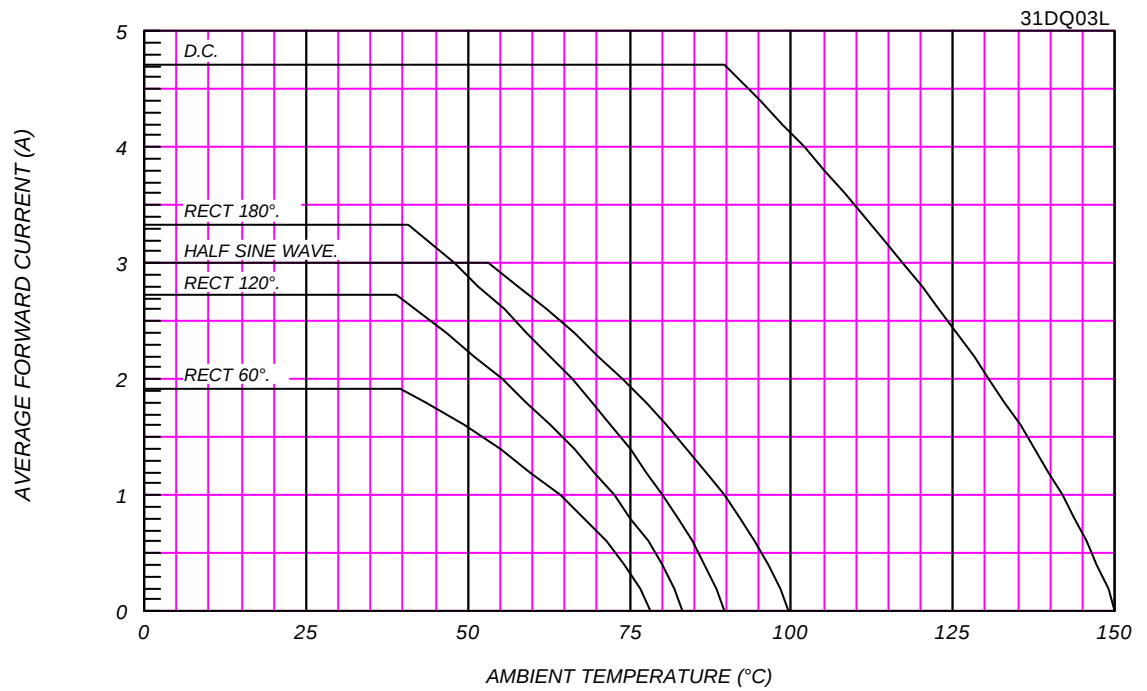
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Without Fin or P.C. Board, $V_{RM}=30V$



AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

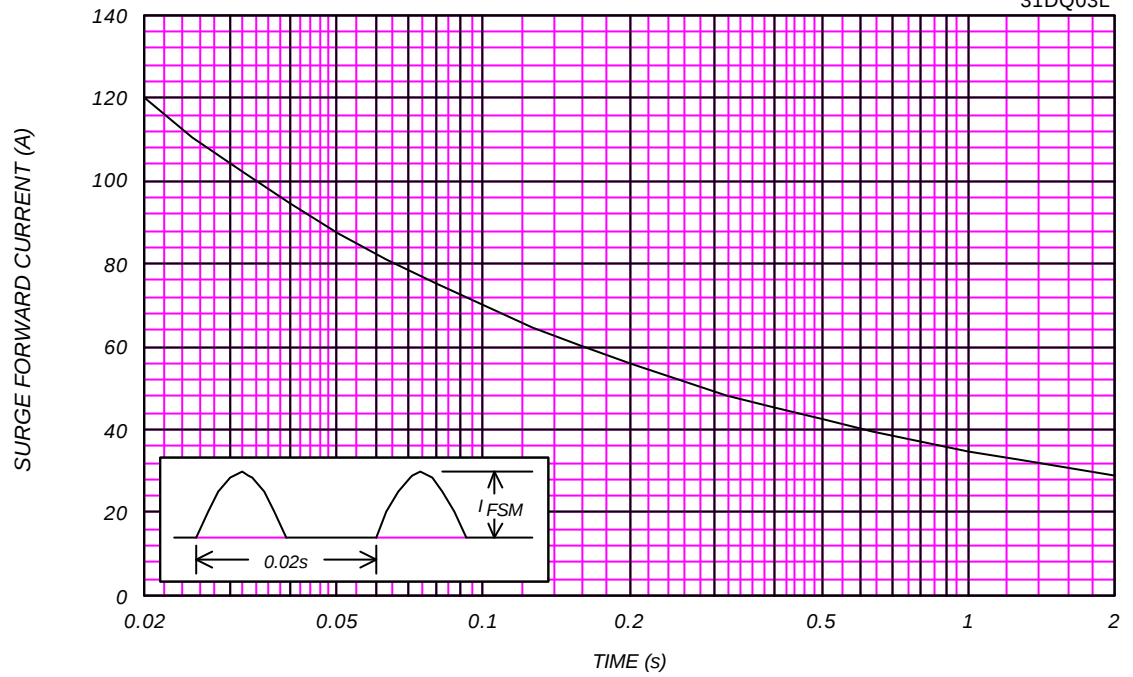
With Cu Fin×2 (20×20×1t, L=5mm, Both Sides), $V_{RM}=30V$



SURGE CURRENT RATINGS

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

31DQ03L



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

T_j=25°C,V_m=20mV_{RMS},f=100kHz,Typical Value

31DQ03L

