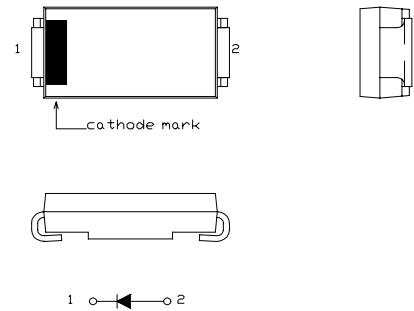


SBD Type : NSQ03A03L

FEATURES

- * **FLAT-PAK** Surface Mounting Device
- * Extremely Low Forward Voltage Drop
- * Low Power Loss,High Efficiency
- * High Surge Capability
- * 30 Volts through 60Volts Types Available
- * Packaged in 16mm Tape and Reel
- * Not Rolling During Assembly

OUTLINE DRAWING



Maximum Ratings

Approx Net Weight:0.16g

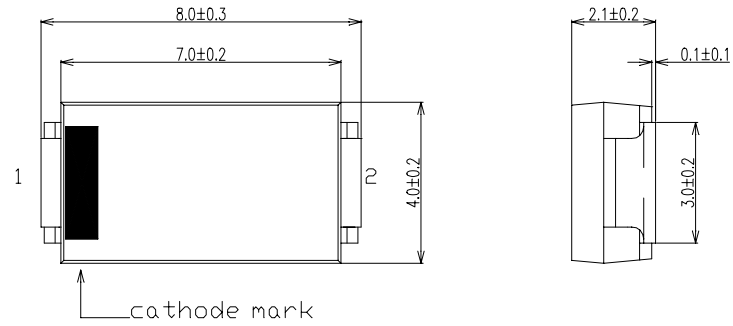
Rating	Symbol	NSQ03A03L			Unit
Repetitive Peak Reverse Voltage	V _{RRM}	30			V
Average Rectified Output Current	I _o	1.6	Ta=25℃ *1	50Hz Half Sine	A
		3.0	Tl=103℃	Wave Resistive Load	
RMS Forward Current	I _{F(RMS)}	4.71			A
Surge Forward Current	I _{FSM}	100	50Hz Half Sine Wave,1cycle Non-repetitive		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}	$T_j= 25^{\circ}\text{C}$, $I_{FM}= 3.0\text{A}$	-	-	0.45	V
Thermal Resistance	Junction to Ambient	$R_{th(j-a)}$	Alumina Substrate Mounted *1	-	-	89	$^{\circ}\text{C} / \text{W}$
	Junction to Lead	$R_{th(j-l)}$	-	-	-	13	

*1 Alumina Substrate Mounted (Soldering Lands=2x3.5mm,Both Sides)
(T_l : Lead Temperature)

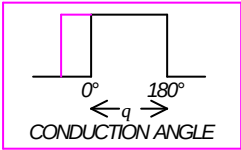
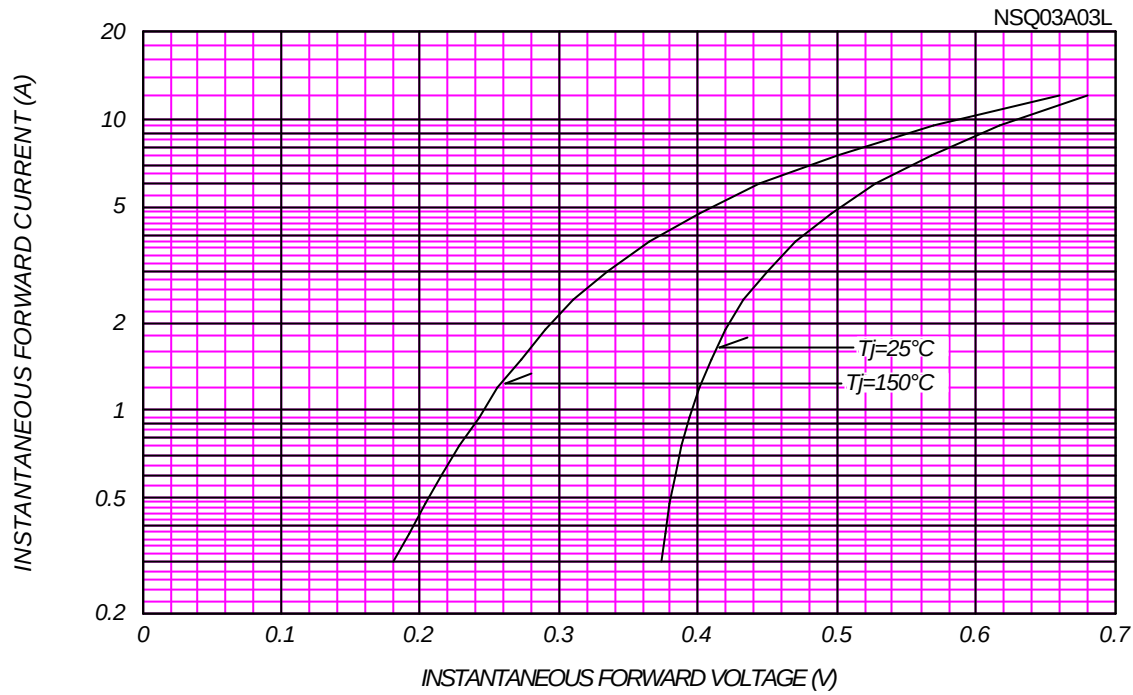
NSQ03A03L OUTLINE DRAWING (Dimensions in mm)



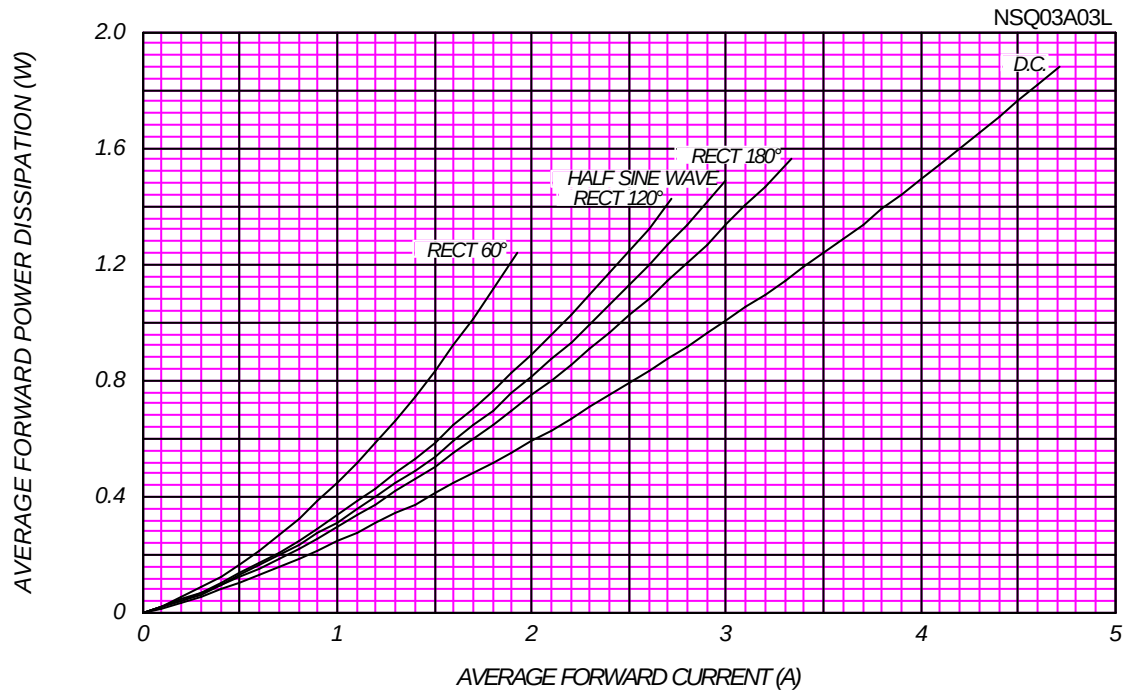
1   2



FORWARD CURRENT VS. VOLTAGE



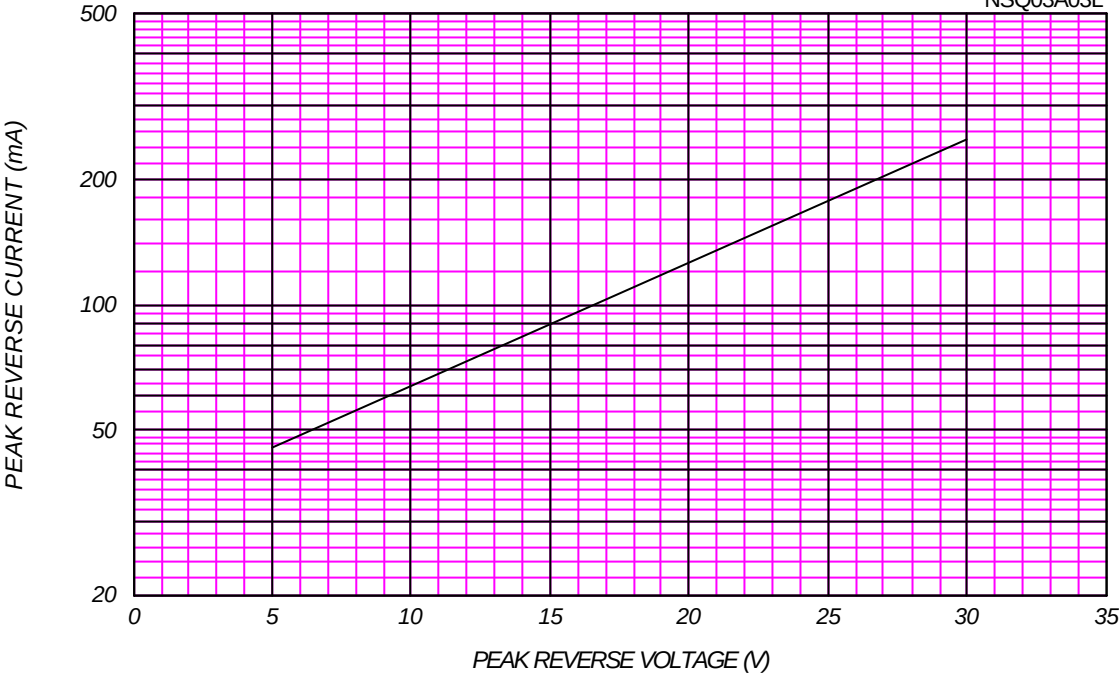
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

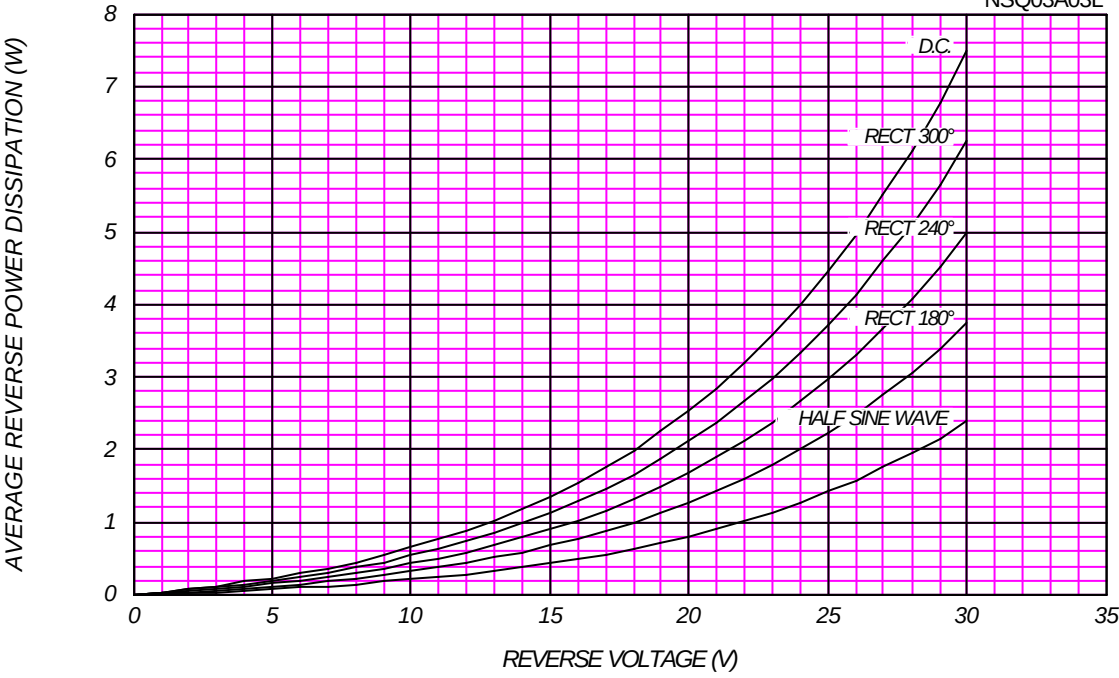
Tj= 150 °C

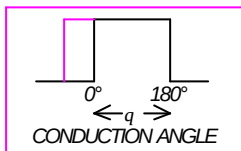
NSQ03A03L



AVERAGE REVERSE POWER DISSIPATION

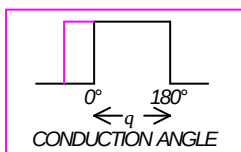
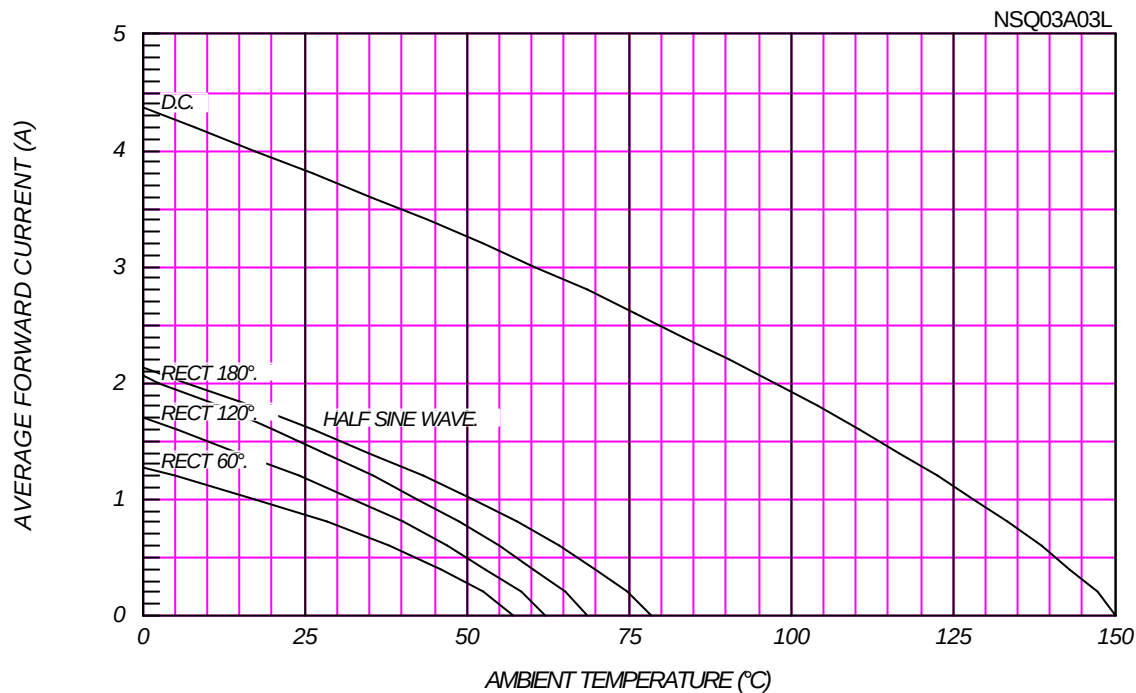
NSQ03A03L





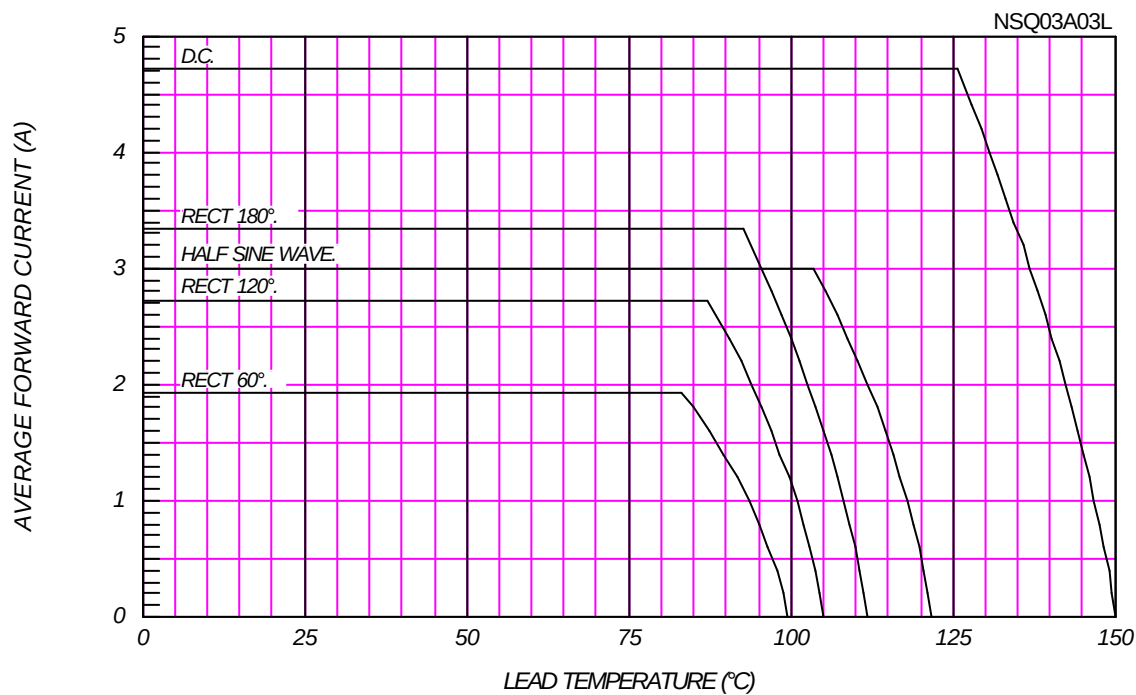
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Alumina Substrate Mounted (Soldering Land= $2 \times 3.5\text{mm}$), $V_{RM}=30\text{V}$



AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

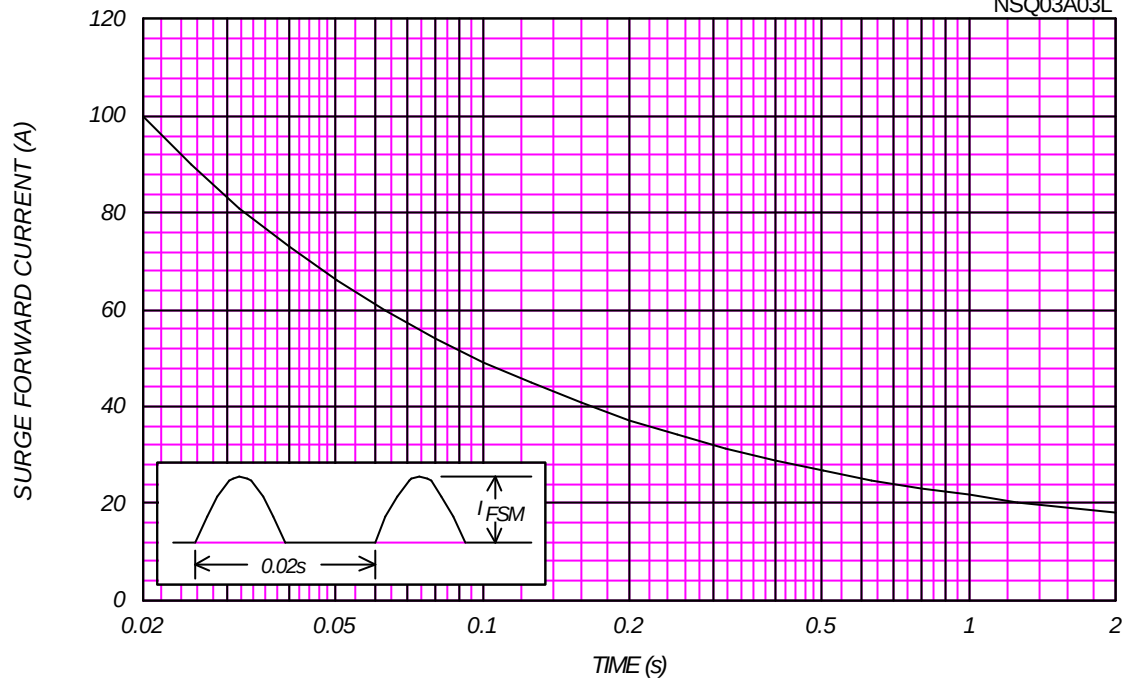
$V_{RM}=30\text{V}$



SURGE CURRENT RATINGS

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

NSQ03A03L



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

NSQ03A03L

