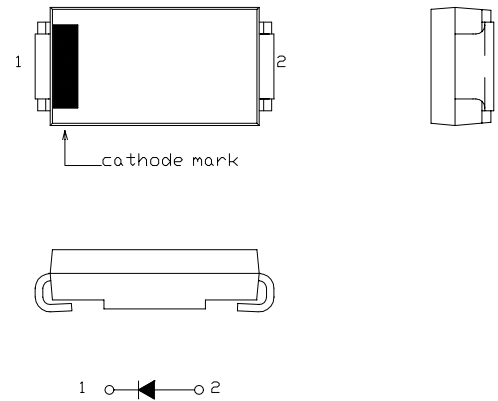


OUTLINE DRAWING

DIODE Type : NSD03A20

FEATURES

- * **FLAT-PAK** Surface Mount Device
- * High Surge Capability
- * Low Forward Voltage Drop
- * Low Reverse Leakage Current
- * Packaged in 16mm Tape and Reel
- * Not Rolling During Assembly



Maximum Ratings

Approx Net Weight:016g

Rating	Symbol	NSD03A20			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	200			V
Average Rectified Output Current	I_O	1.57	$T_a=25\text{ }^\circ\text{C}$ *1	50Hz Half Sine Wave Resistive Load	A
		3.0	$T_l=108\text{ }^\circ\text{C}$ *2		
RMS Forward Current	$I_{F(RMS)}$	4.71			A
Surge Forward Current	I_{FSM}	80	50Hz Half Sine Wave, 1cycle Non-repetitive		A
Operating Junction Temperature Range	T_{jw}	-40 to +150			$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-40 to +150			$^\circ\text{C}$

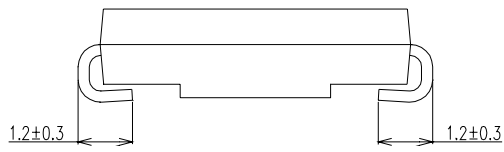
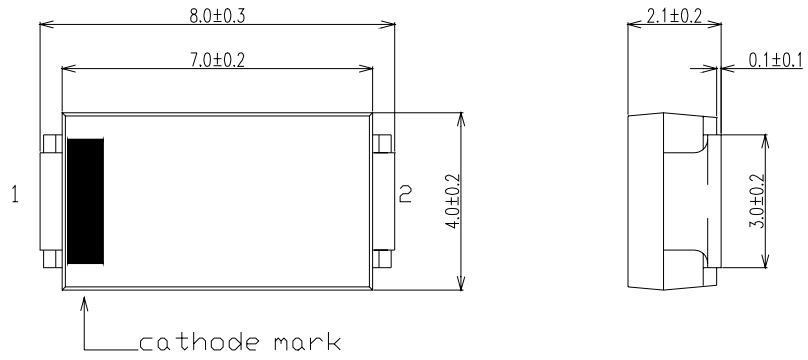
Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	$T_j= 25^\circ\text{C}$, $V_{RM}= V_{RRM}$	-	-	50	μA
Peak Forward Voltage	V_{FM}	$T_j= 25^\circ\text{C}$, $I_{FM}= 3.0\text{A}$	-	-	1.0	V
Thermal Resistance	$R_{th(j-a)}$	Junction to Ambient *1	-	-	89	$^\circ\text{C}/\text{W}$
	$R_{th(j-l)}$	Junction to Lead	-	-	13	

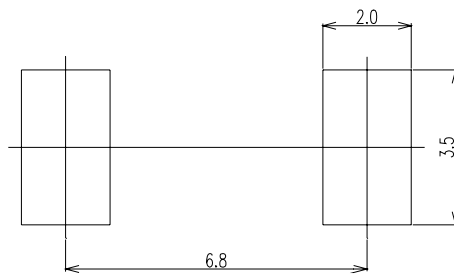
*1 Glass Epoxy Substrate Mounted (Soldering Lands=2x2mm,Both Sides)

*2 T_l = Lead Temperature

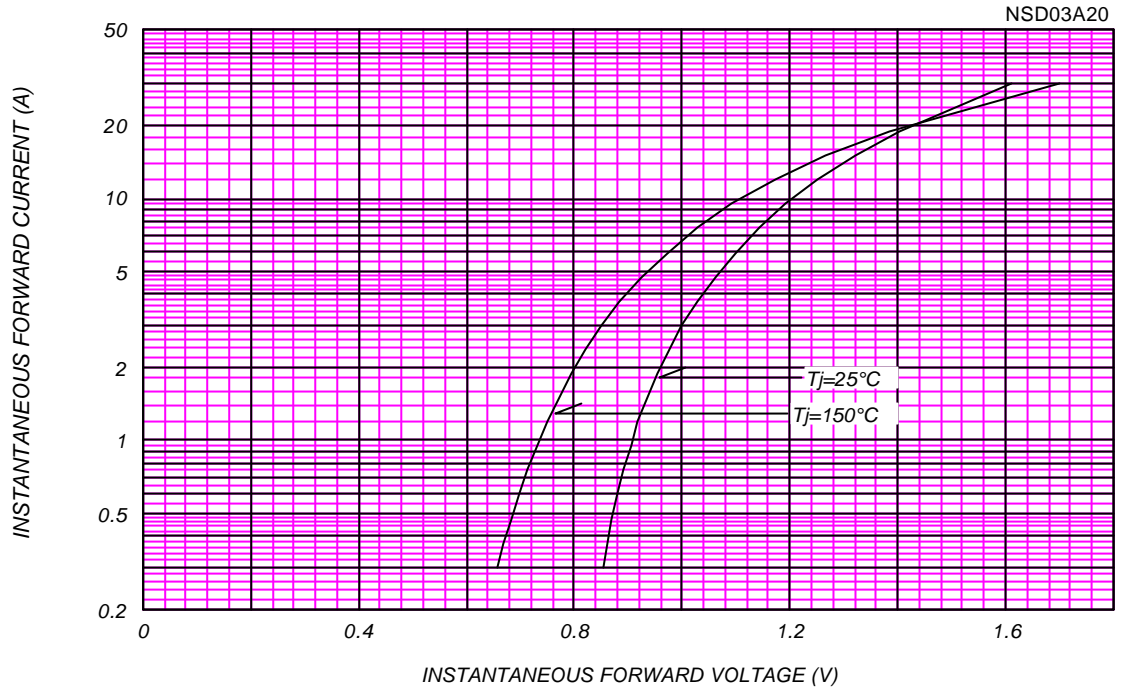
NSD03A20 OUTLINE DRAWING (Dimensions in mm)



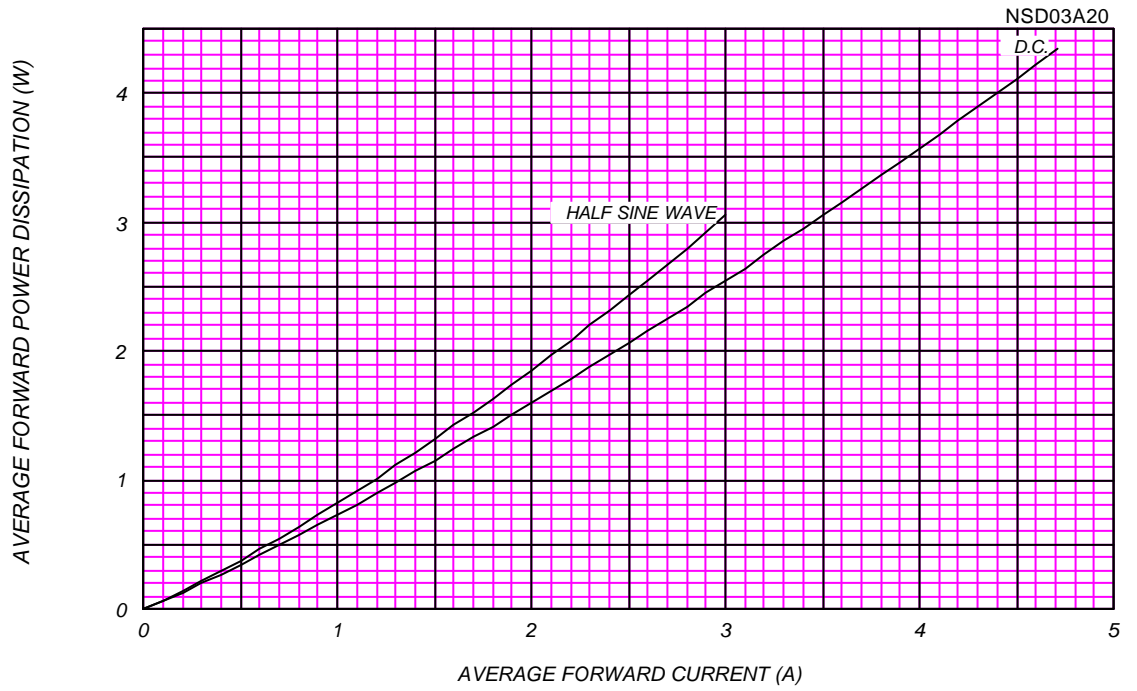
SOLDERING PAD



FORWARD CURRENT VS. VOLTAGE



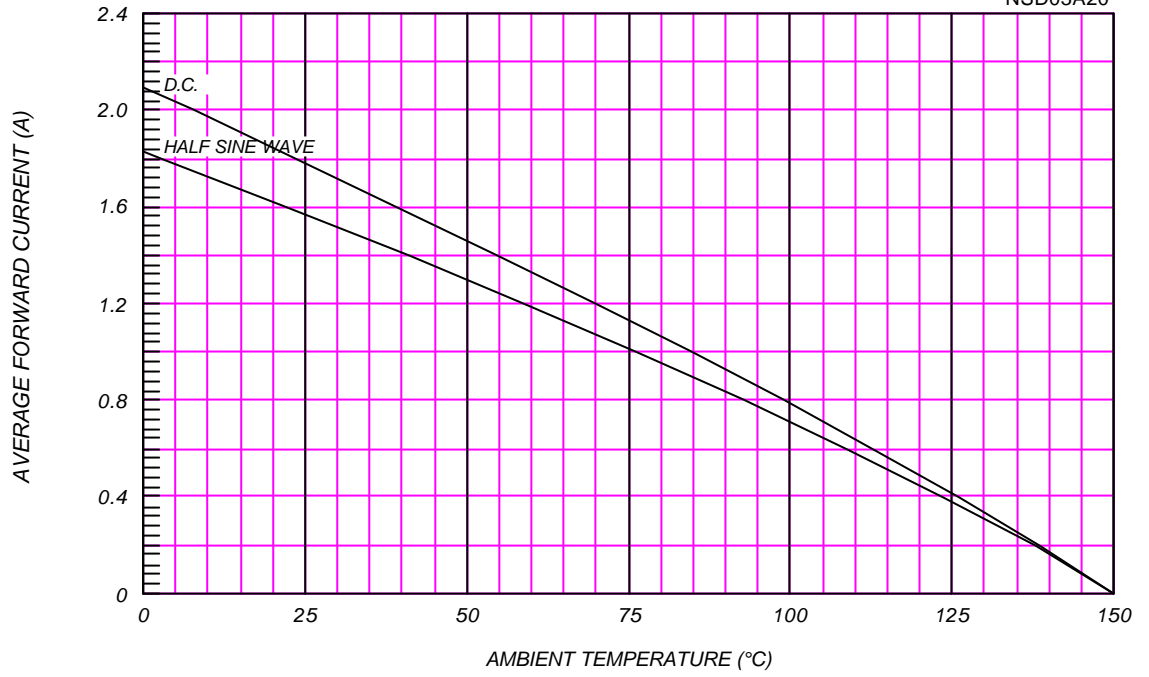
AVERAGE FORWARD POWER DISSIPATION



AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Alumina Substrate Mounted(Soldering Land=2*3.5mm)

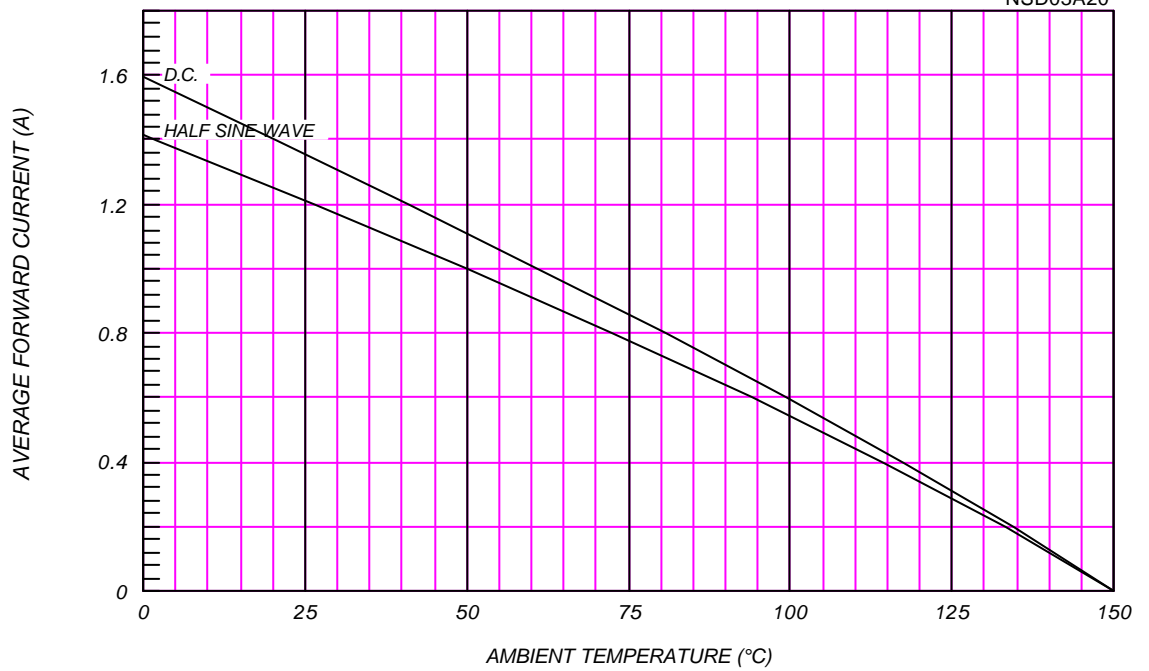
NSD03A20



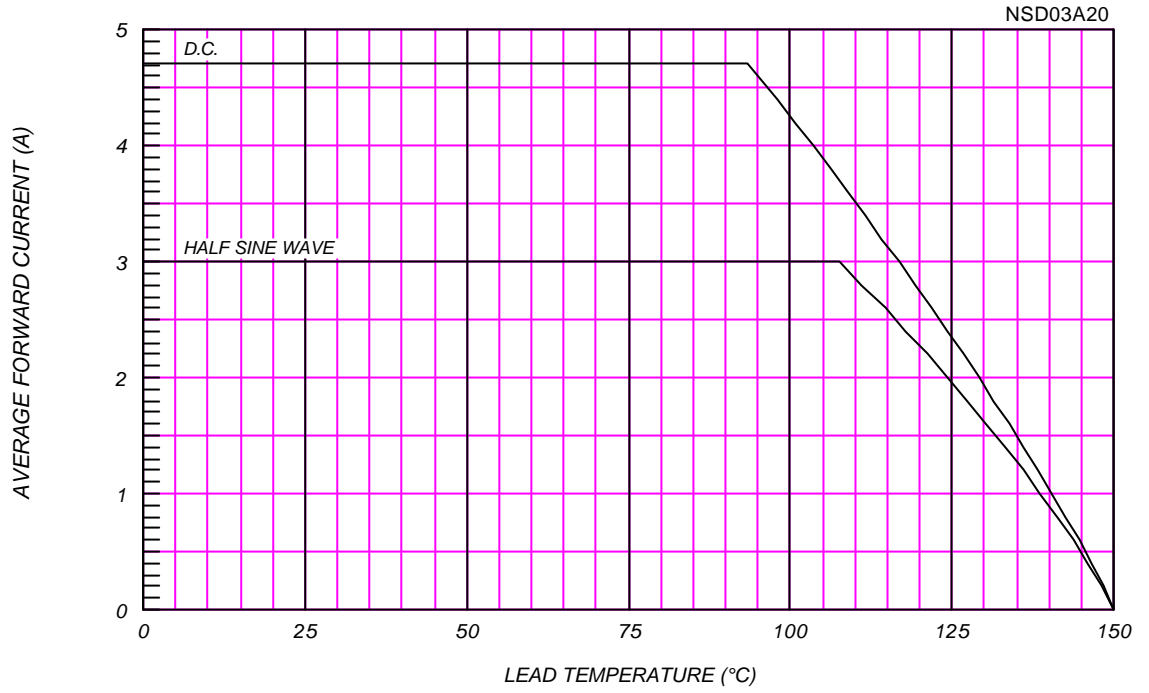
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Glass-Epoxy Substrate Mounted(Soldering Land=2*3.5mm)

NSD03A20



AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE



SURGE CURRENT RATINGS

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

