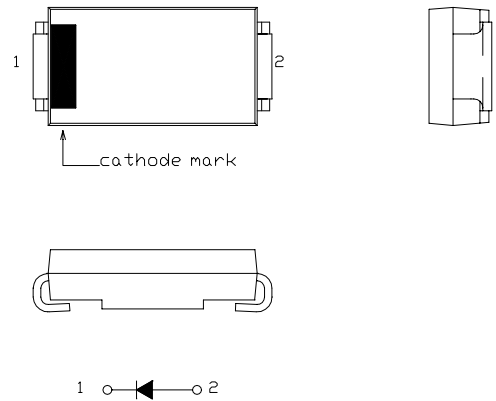


OUTLINE DRAWING

# 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
		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		$^\circ\text{C}$

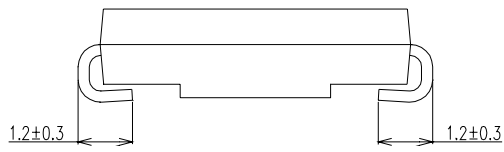
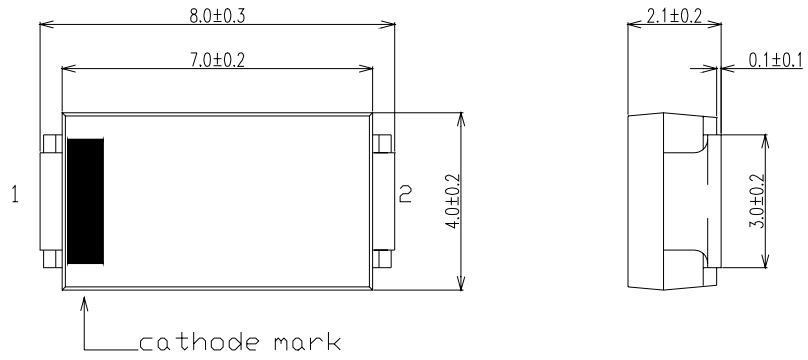
## Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j= 25^\circ\text{C}$ , $V_{RM}= V_{RRM}$	-	-	50	$\mu\text{A}$
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	

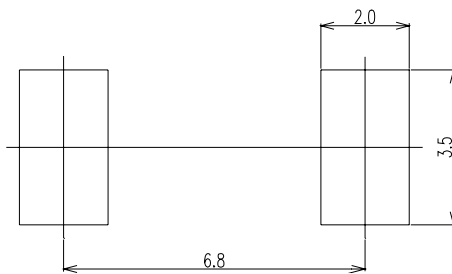
\*1 Glass Epoxy Substrate Mounted (Soldering Lands=2x2mm,Both Sides)

\*2  $T_l$ = Lead Temperature

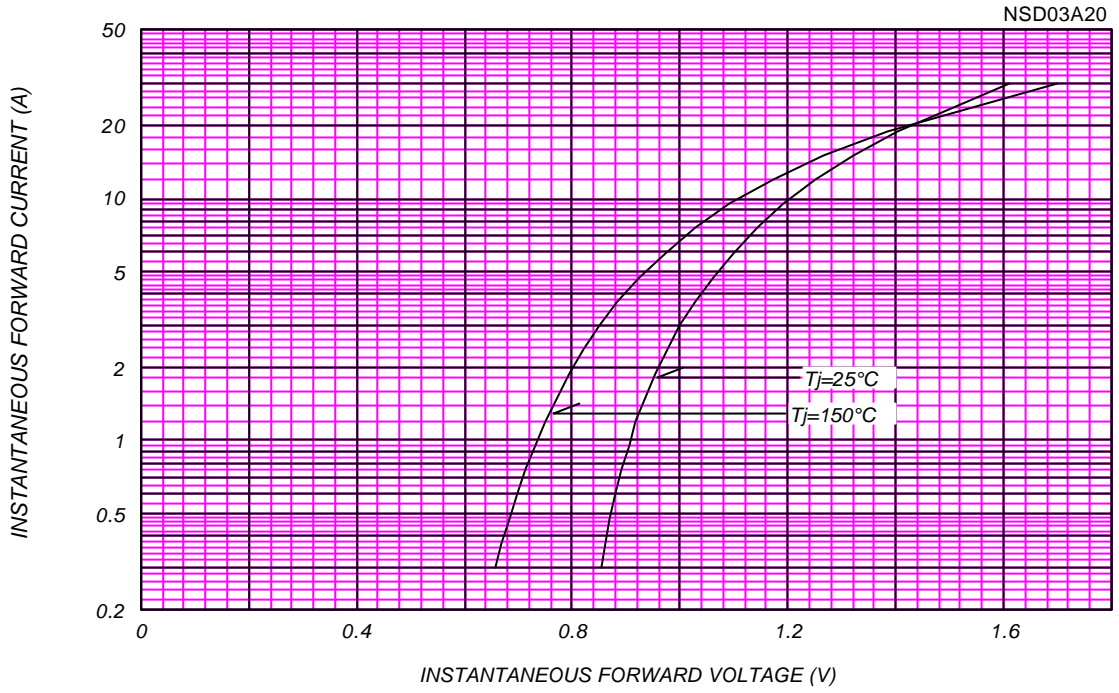
NSD03A20 OUTLINE DRAWING (Dimensions in mm)



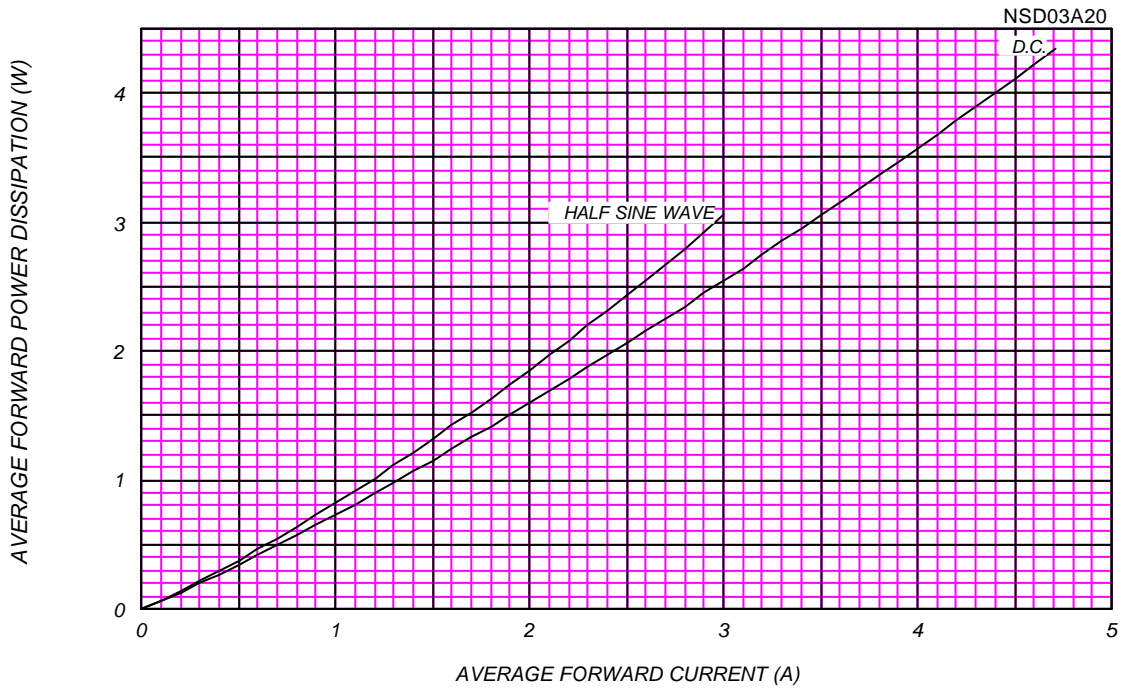
SOLDERING PAD



FORWARD CURRENT VS. VOLTAGE



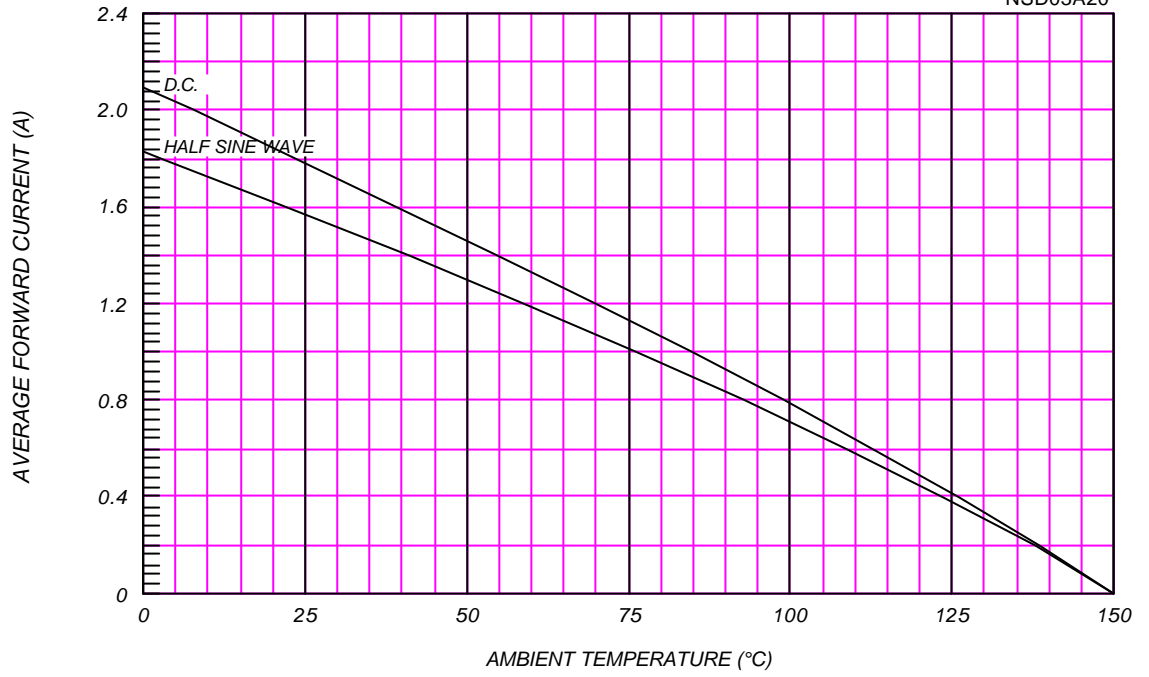
AVERAGE FORWARD POWER DISSIPATION



### AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

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

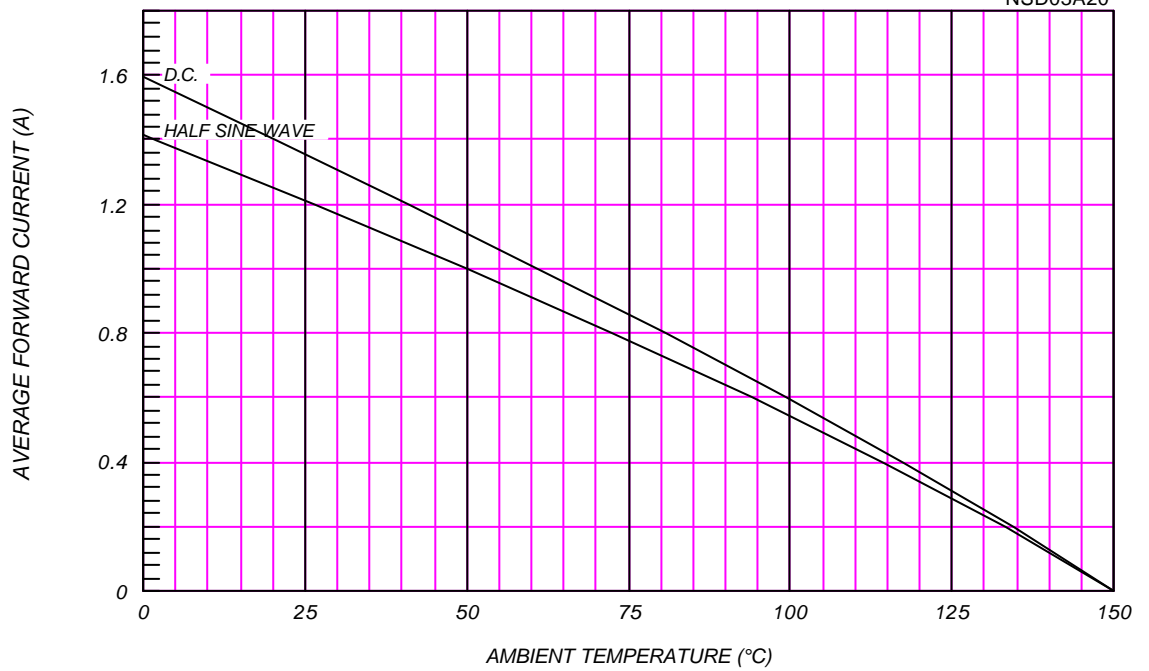
NSD03A20



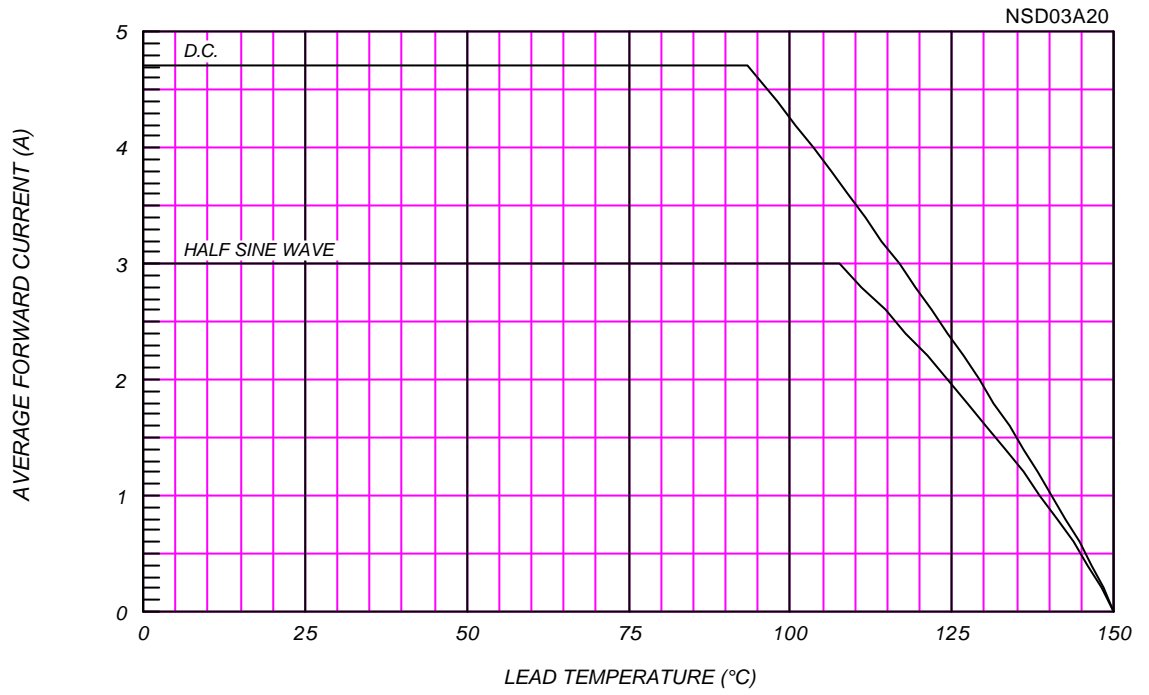
### AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

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

