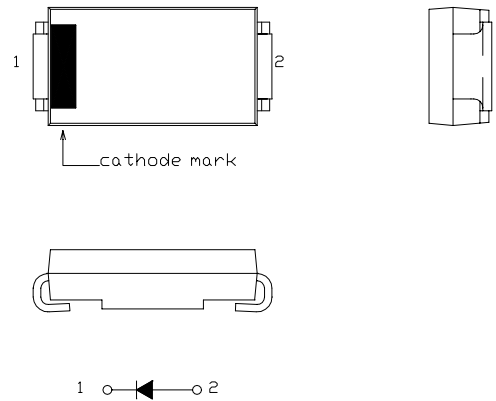


OUTLINE DRAWING

FRD Type : **NSF03A20**
FEATURES

- * **FLAT-PAK** Surface Mount Device
- * Ultra F_{sat} Recovery
- * High Surge Capability
- * Low Forward Voltage Drop
- * Low Power Loss, High Efficiency
- * Packaged in 16mm Tape and Reel
- * Not Rolling During Assembly


Maximum Ratings

Approx Net Weight:016g

Rating	Symbol	NSF03A20			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	200			V
Average Rectified Output Current	I_O	1.61	$T_a=25\text{ }^\circ\text{C}$ *1	50Hz Half Sine Wave Resistive Load	A
		3.0	$T_1=106\text{ }^\circ\text{C}$ *2		
RMS Forward Current	$I_{F(RMS)}$	4.71			A
Surge Forward Current	I_{FSM}	45	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			$^\circ\text{C}$

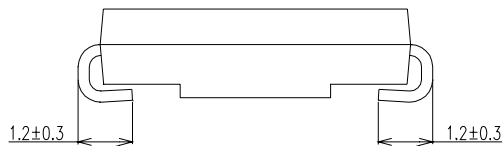
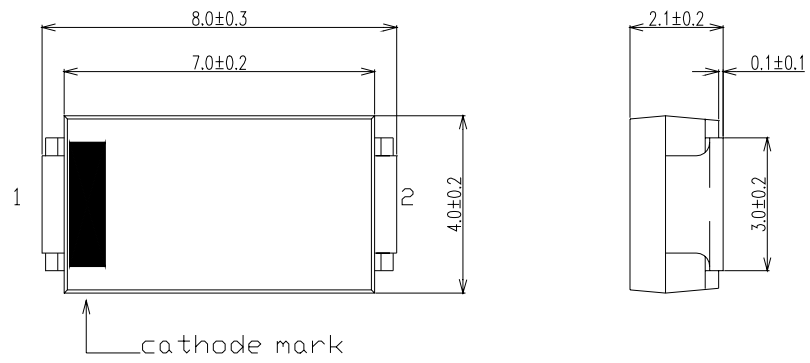
Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	$T_j=25\text{ }^\circ\text{C}$, $V_{RM}=V_{RRM}$	-	-	10	μA
Peak Forward Voltage	V_{FM}	$T_j=25\text{ }^\circ\text{C}$, $I_{FM}=3.0\text{A}$	-	-	0.98	V
Reverse Recovery Time	t_{rr}	$T_a=25\text{ }^\circ\text{C}$, $I_{FM}=3.0\text{A}$ $-di/dt=50\text{A}/\mu\text{s}$	-	-	30	ns
Thermal Resistance	$R_{th(j-a)}$	Junction to Ambient *1	-	-	89	$^\circ\text{C}/\text{W}$
	$R_{th(j-l)}$	Junction to Lead	-	-	13	

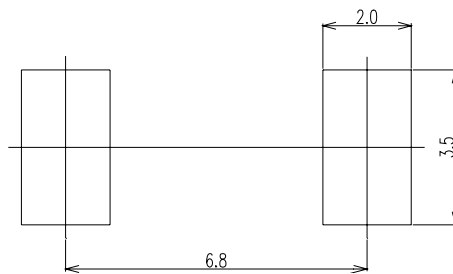
*1 Alumina Substrate Mounted (Soldering Lands=2x3.5mm,Both Sides)

 *2 T_1 = Lead Temperature

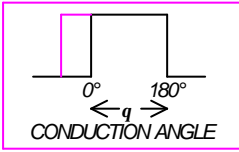
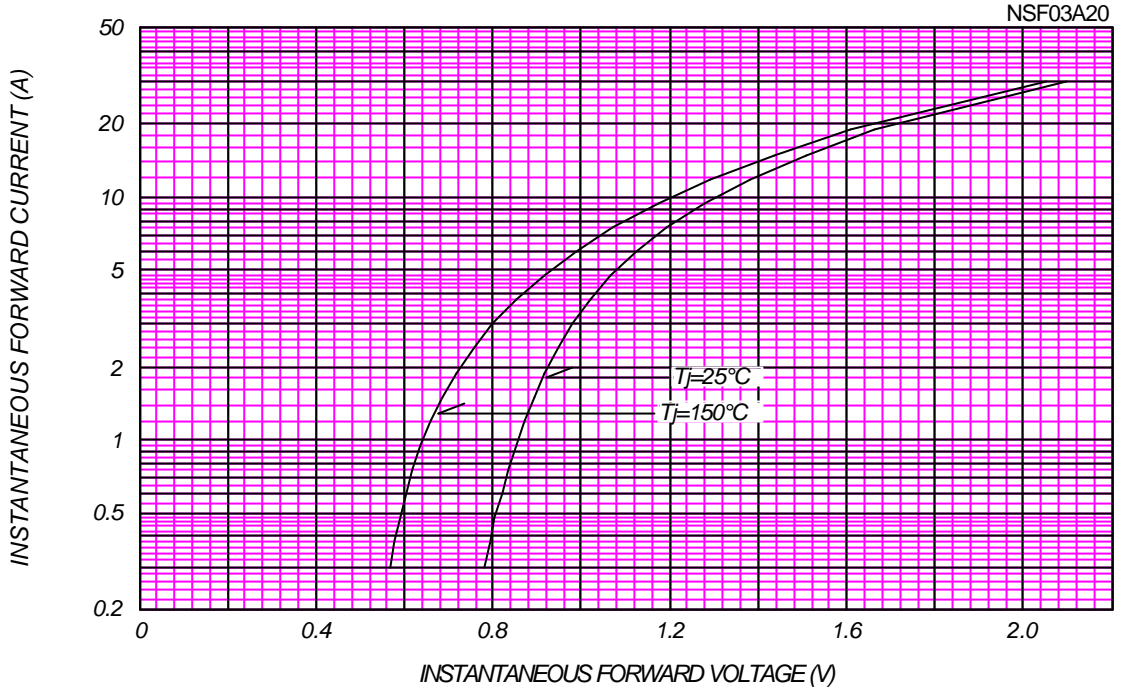
NSF03A20 OUTLINE DRAWING (Dimensions in mm)



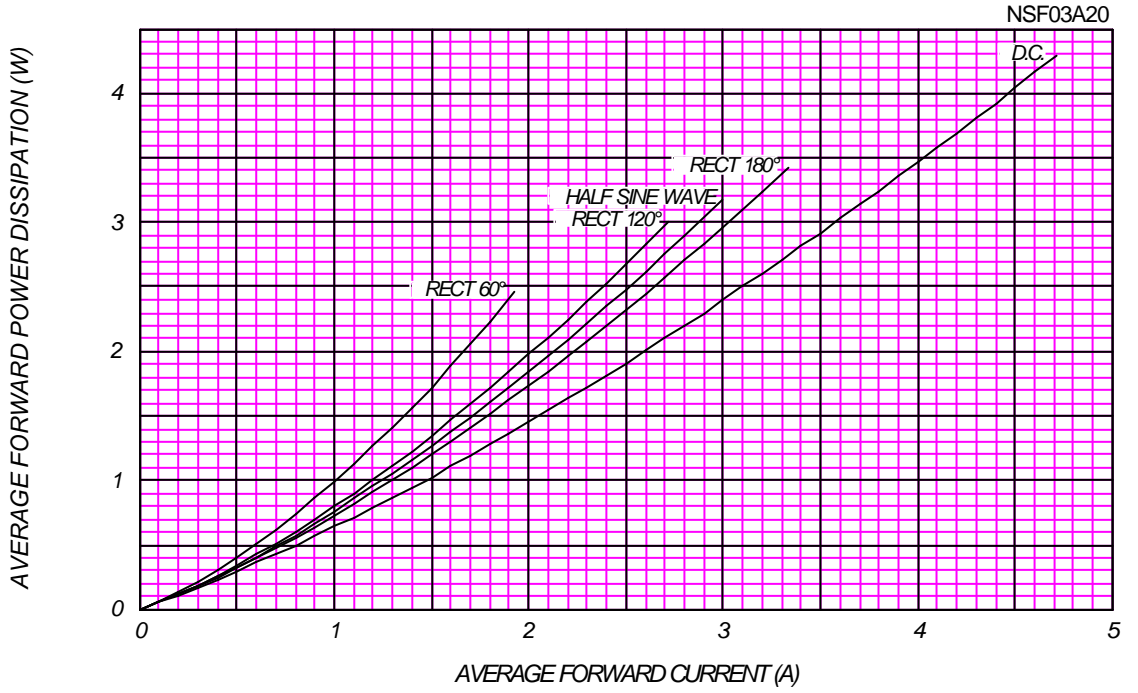
SOLDERING PAD

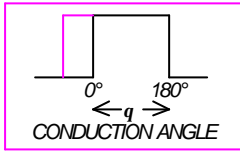


FORWARD CURRENT VS. VOLTAGE



AVERAGE FORWARD POWER DISSIPATION

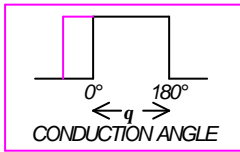
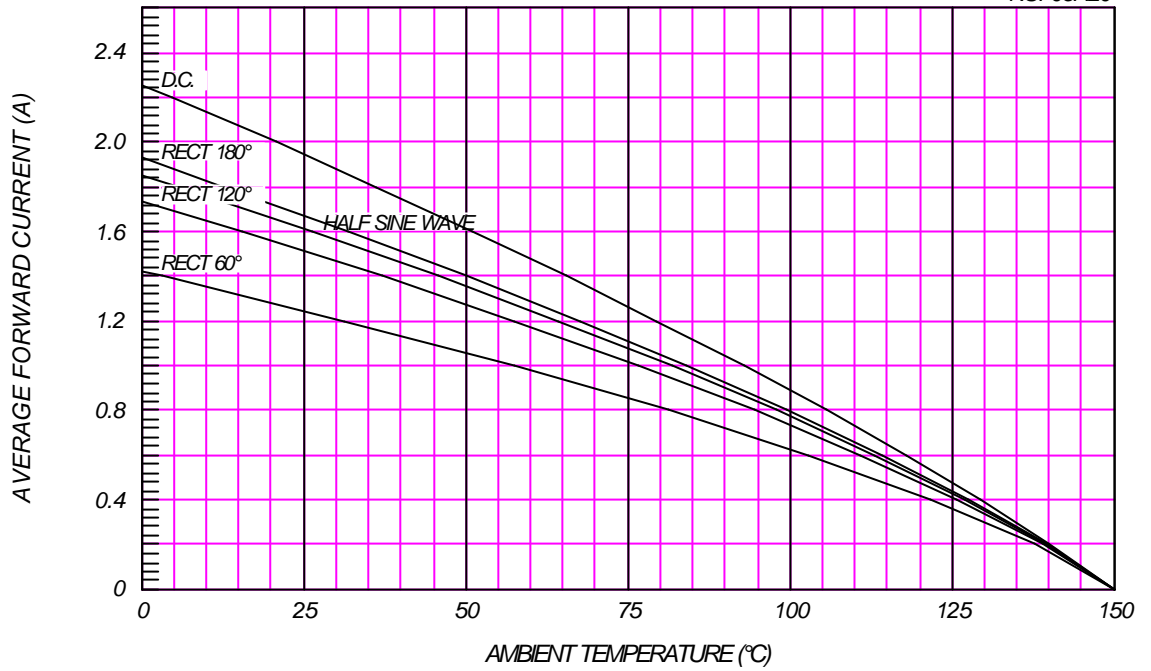




AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

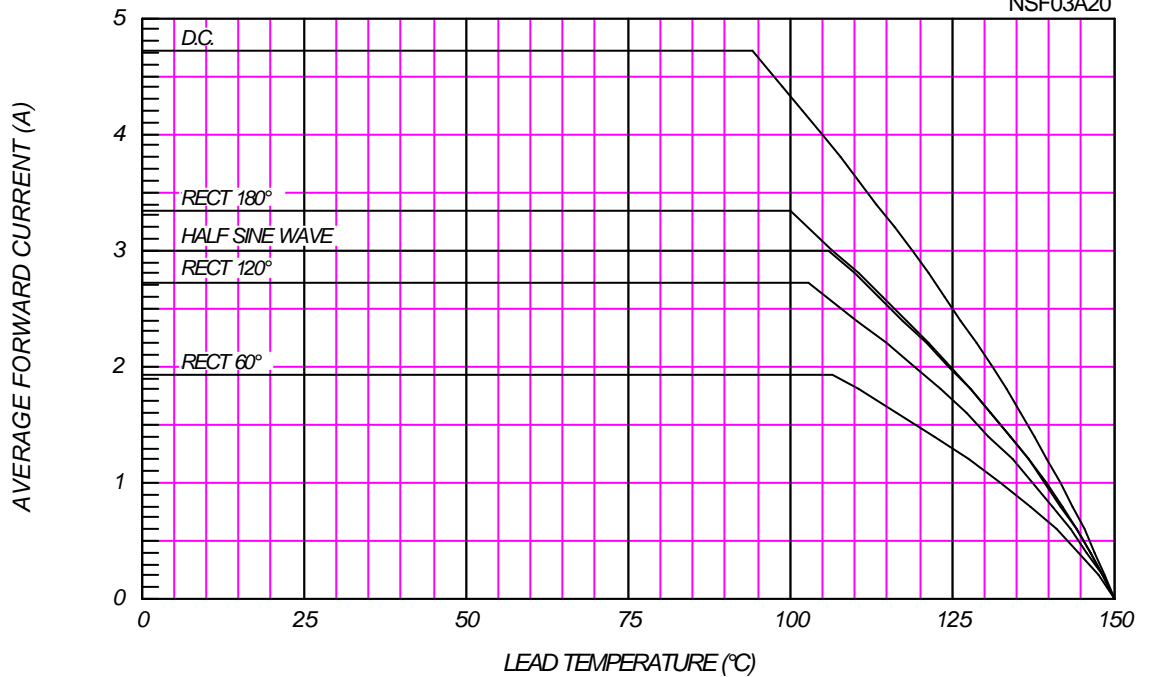
Alumina Substrate Mounted (Soldering Land=2x3.5mm)

NSF03A20



AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

NSF03A20



SURGE CURRENT RATINGS

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

NSF03A20

