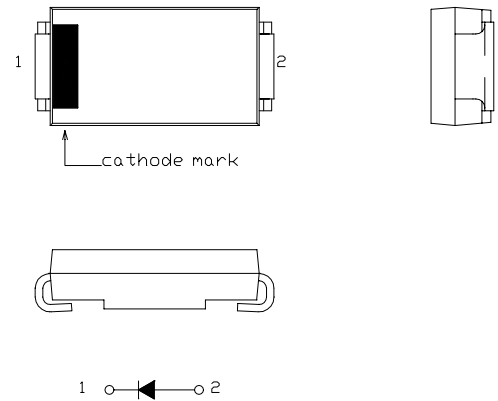


OUTLINE DRAWING

# FRD Type : NSF03A40

## FEATURES

- \* **FLAT-PAK** Surface Mount Device
- \* Ultra F<sub>sat</sub> 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	NSF03A40		Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	400		V
Average Rectified Output Current	$I_O$	1.41	T <sub>a</sub> =25 °C *1	50Hz Half Sine Wave Resistive Load
		3.0	T <sub>l</sub> =99 °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		°C
Storage Temperature Range	$T_{stg}$	-40 to +150		°C

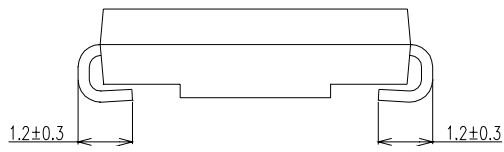
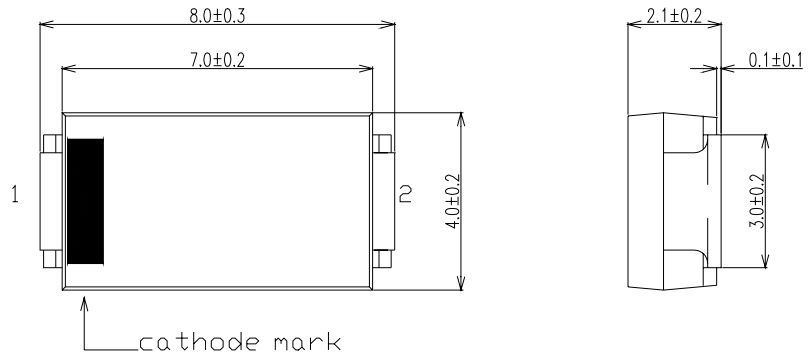
## Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	T <sub>j</sub> = 25°C, V <sub>RM</sub> = V <sub>RRM</sub>	-	-	20	μA
Peak Forward Voltage	$V_{FM}$	T <sub>j</sub> = 25°C, I <sub>FM</sub> = 3.0A	-	-	1.25	V
Reverse Recovery Time	trr	T <sub>a</sub> = 25°C, I <sub>FM</sub> =3 A -di/dt=50A/μs			35	ns
Thermal Resistance	R <sub>th(j-a)</sub>	Junction to Ambient *1	-	-	89	°C /W
	R <sub>th(j-l)</sub>	Junction to Lead	-	-	13	

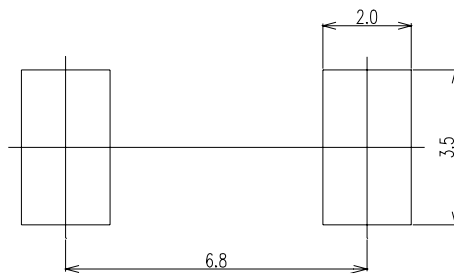
\*1 Alumina Substrate Mounted (Soldering Lands=2x3.5mm,Both Sides)

\*2 T<sub>l</sub>= Lead Temperature

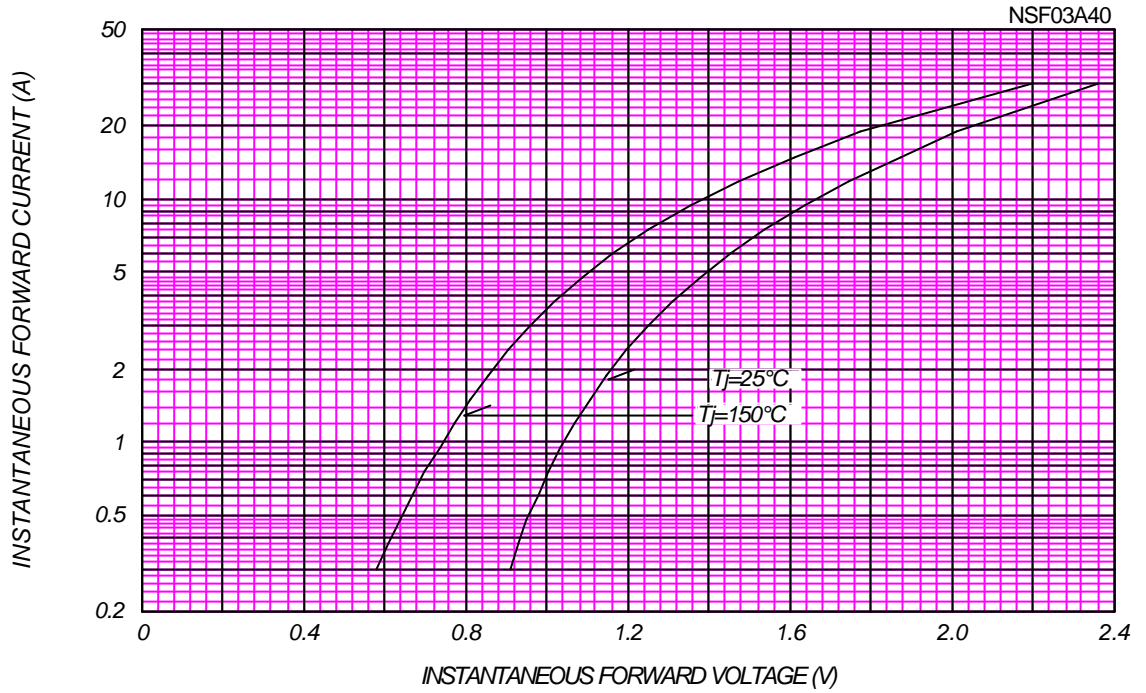
NSF03A40 OUTLINE DRAWING (Dimensions in mm)



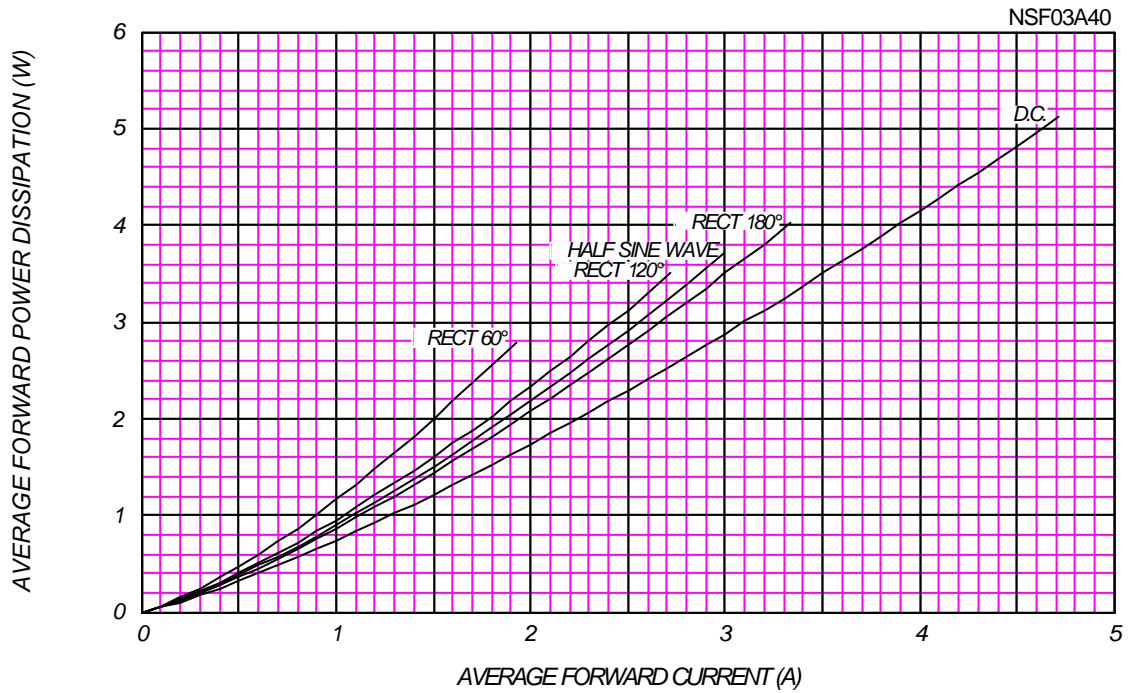
SOLDERING PAD



FORWARD CURRENT VS. VOLTAGE



AVERAGE FORWARD POWER DISSIPATION

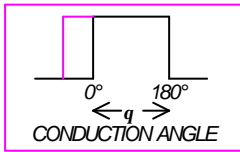
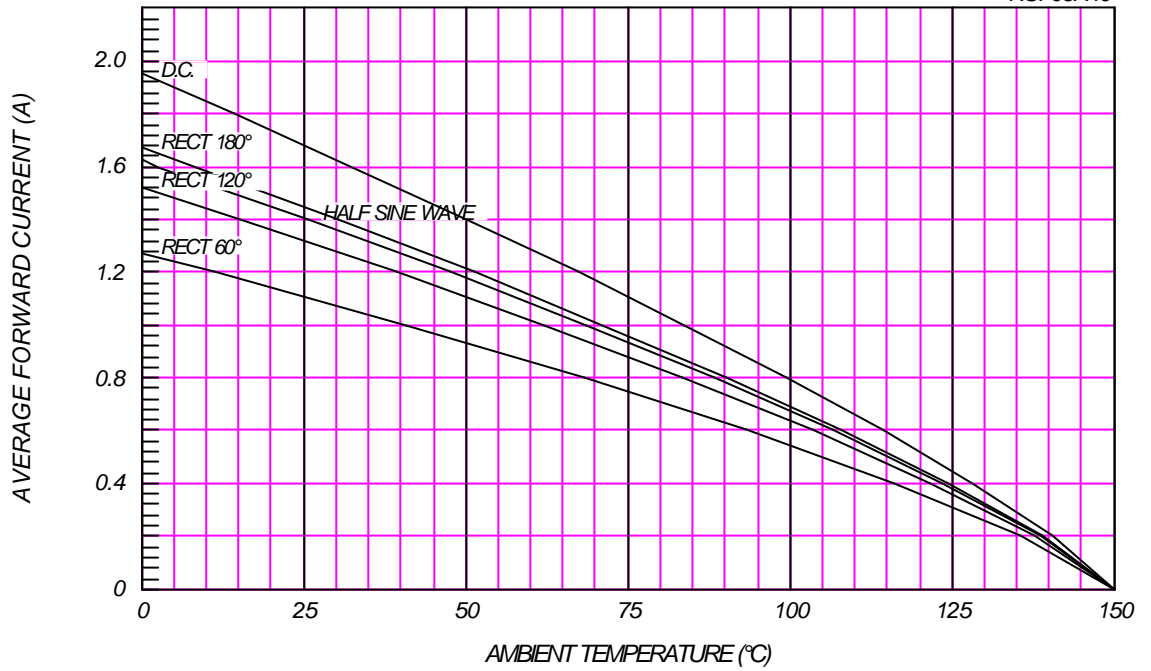




### AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

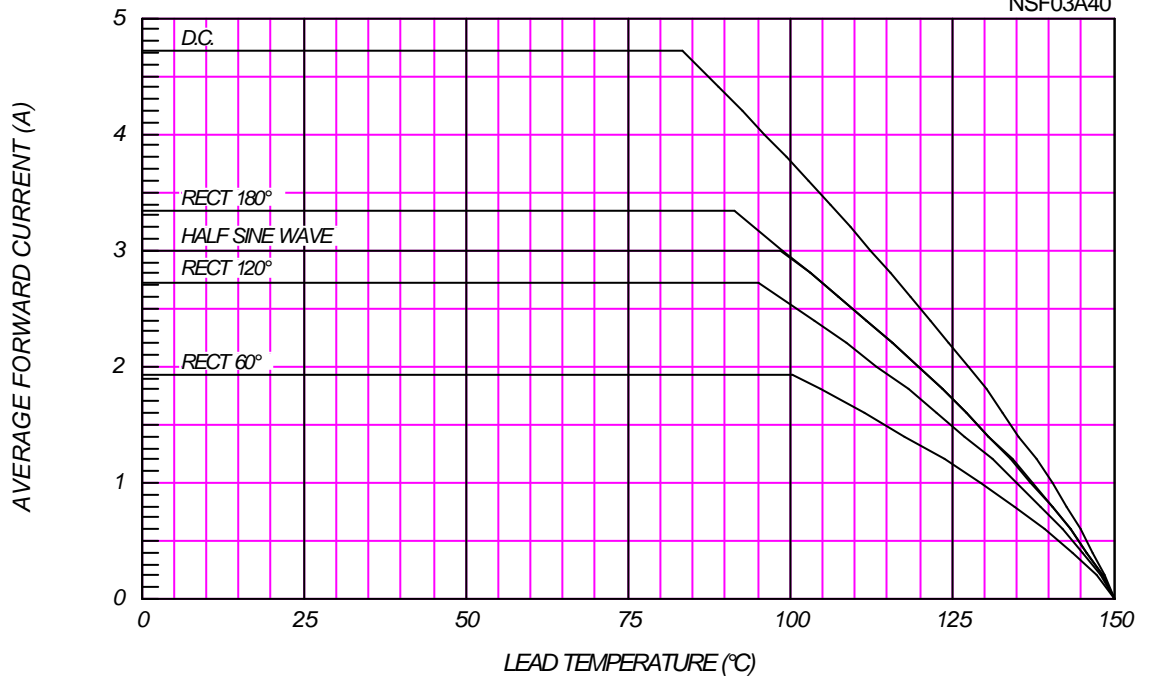
Alumina Substrate Mounted (Soldering Land=2x3.5mm)

NSF03A40



### AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

NSF03A40



# SURGE CURRENT RATINGS

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

NSF03A40

