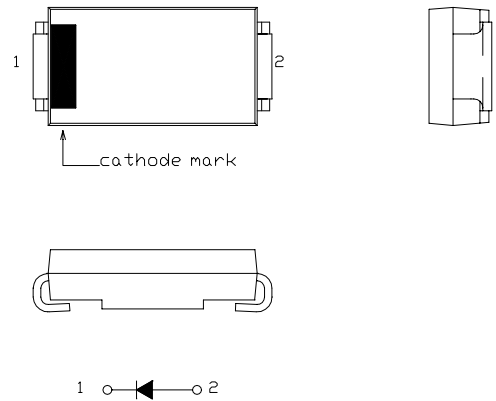


## OUTLINE DRAWING

**FRD Type : NSF03A20**
**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       | 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 |  |                                    | $^\circ\text{C}$ |

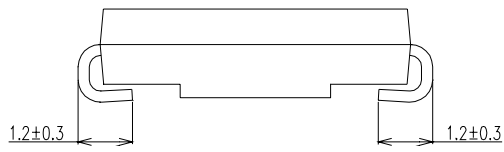
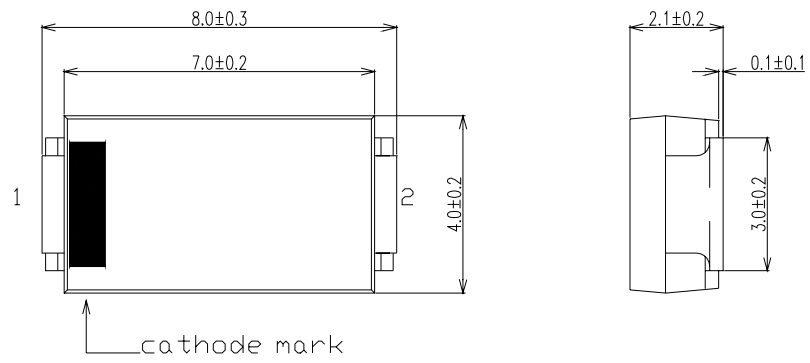
**Electrical • Thermal Characteristics**

| Characteristics       | Symbol        | Conditions  | Min. | Typ. | Max. | Unit                      |
|-----------------------|---------------|---|------|------|------|---------------------------|
| Peak Reverse Current  | $I_{RM}$      | $T_j= 25^\circ\text{C}$ , $V_{RM}= V_{RRM}$                                     | -    | -    | 10   | $\mu\text{A}$             |
| Peak Forward Voltage  | $V_{FM}$      | $T_j= 25^\circ\text{C}$ , $I_{FM}= 3.0\text{A}$                                 | -    | -    | 0.98 | V                         |
| Reverse Recovery Time | trr           | $T_a= 25^\circ\text{C}$ , $I_{FM}=3.0\text{ A}$ $-di/dt=50\text{A}/\mu\text{s}$ |      |      | 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

