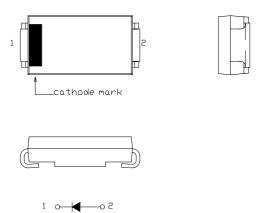
# Nihon Inter Electronics Corporation

#### **OUTLINE DRAWING**

## $\textbf{FRD} \quad \mathrm{Type}: NSF03A20$

### **FEATURES**

- \* FLAT-PAK Surface Mount Device
- \* Ultra Fsat 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 <sub>RRM</sub>     | 200         |                   |                     | V    |  |
| Average Rectified Output Current    | Io                   | 1.61        | Ta=25 °C *1       | 50Hz Half Sine      | A    |  |
|                                     |                      | 3.0         | T1=106 °C *2      | Wave Resistive Load |      |  |
| RMS Forward Current                 | I <sub>F</sub> (RMS) | 4.71        |                   |                     | Α    |  |
| Surge Forward Current               | $I_{FSM}$            | 45          | 50Hz Half Sine Wa | A                   |      |  |
|                                     |                      |             | Non-repetitive    |                     |      |  |
| Operating JunctionTemperature Range | $T_{jw}$             | -40 to +150 |                   |                     | °C   |  |
| Storage Temperature Range           | T <sub>stg</sub>     | -40 to +150 |                   |                     | °C   |  |

### **Electrical** • Thermal Characteristics

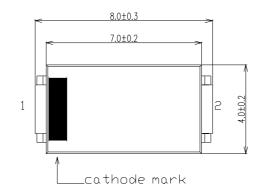
| Characteristics       | Symbol               | Conditions                                       |   | Тур. | Max. | Unit  |  |
|-----------------------|----------------------|--|---|------|------|-------|--|
| Peak Reverse Current  | $I_{RM}$             | Tj= 25°C, V <sub>RM</sub> = V <sub>RRM</sub>     | - | -    | 10   | μΑ    |  |
| Peak Forward Voltage  | $V_{\rm FM}$         | Tj= 25°C, I <sub>FM</sub> = 3.0A                 | 1 | -    | 0.98 | V     |  |
| Reverse Recovery Time | trr                  | Ta= 25°C, $I_{FM}$ =3.0 A $-di/dt$ =50A/ $\mu$ s |   |      | 30   | ns    |  |
| Thermal Resistance    | Rth <sub>(j-a)</sub> | Junction to Ambient *1                           | ı | -    | 89   | °C /W |  |
|                       | Rth <sub>(j-l)</sub> | Junction to Lead                                 | - | -    | 13   |       |  |

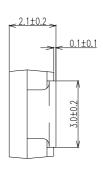
<sup>\*1</sup> Alumina Substrate Mounted (Soldering Lands=2x3.5mm,Both Sides)

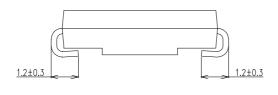
<sup>\*2</sup> Tl= Lead Temperature

## Nihon Inter Electronics Corporation

## NSF03A20 OUTLINE DRAWING (Dimensions in mm)









SOLDERING PAD

