



## Features

- Average Forward Current:  $I_{F(AV)}=2A$
- Polarity: Color band denotes cathode



**SMB  
(DO-214AA)**

## Package Marking and Ordering Information

| Product ID | Pack              | Marking | Qty(PCS) |
|------------|-------------------|---------|----------|
| NTE642     | SMB<br>(DO-214AA) | SS210   | 3000     |



## Maximum Ratings (Ta=25°C unless otherwise noted)

| Item                                     | Symbol      | Test Conditions                                    | NTE642     | Unit |
|------------------------------------------|-------------|----------------------------------------------------|------------|------|
| Repetitive Peak Reverse Voltage          | $V_{RRM}$   |                                                    | 100        | V    |
| Maximum RMS Voltage                      | $V_{RMS}$   |                                                    | 70         | V    |
| Average Forward Current                  | $I_{F(AV)}$ | 60Hz Half-sine wave,<br>Resistance load, TL(Fig.1) | 2.0        | A    |
| Surge(Non-repetitive)<br>Forward Current | $I_{FSM}$   | 60Hz Half-sine wave,<br>1 cycle, Ta=25°C           | 50         | A    |
| Junction Temperature                     | $T_J$       |                                                    | -55~+150   | °C   |
| Storage Temperature                      | $T_{STG}$   |                                                    | -55 ~ +150 | °C   |

## Electrical Characteristics (Ta=25°C unless otherwise specified)

| Item                        | Symbol           | Test Condition                | NTE642 | Unit     |
|-----------------------------|------------------|-------------------------------|--------|----------|
| Peak Forward Voltage        | $V_F$            | $I_F=2.0A$                    | 0.85   | V        |
| Peak Reverse Current        | $I_{RRM1}$       | $V_{RM}=V_{RRM}$              | 0.1    | mA       |
|                             | $I_{RRM2}$       |                               | 5.0    |          |
| Thermal Resistance(Typical) | $R_{\theta J-A}$ | Between junction and ambient  | 75     | °C/<br>W |
|                             | $R_{\theta J-L}$ | Between junction and terminal | 17     |          |

### Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas



## Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

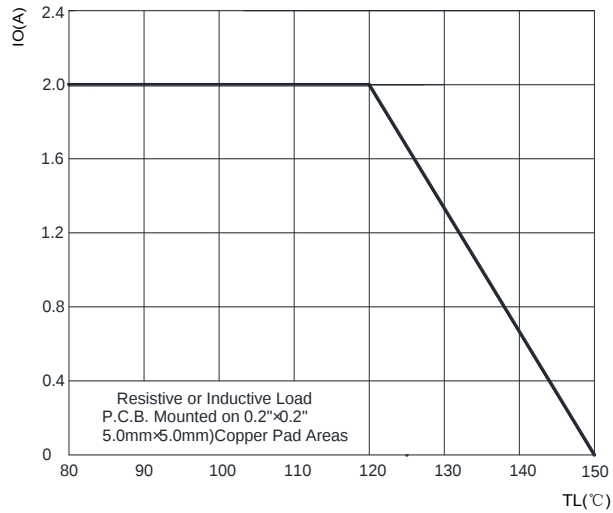


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

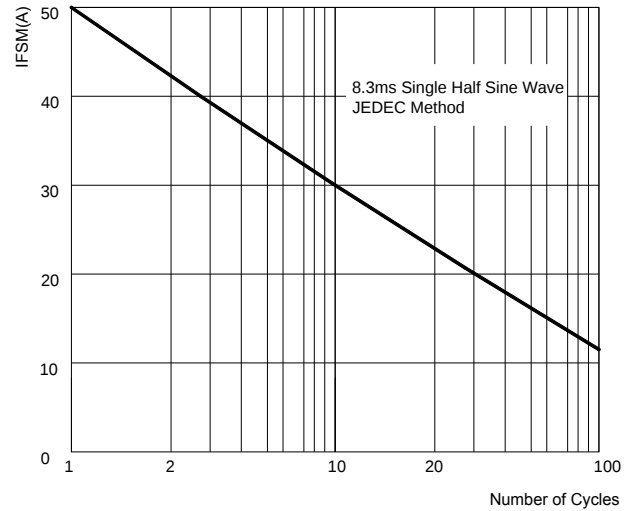


FIG.3: TYPICAL FORWARD CHARACTERISTICS

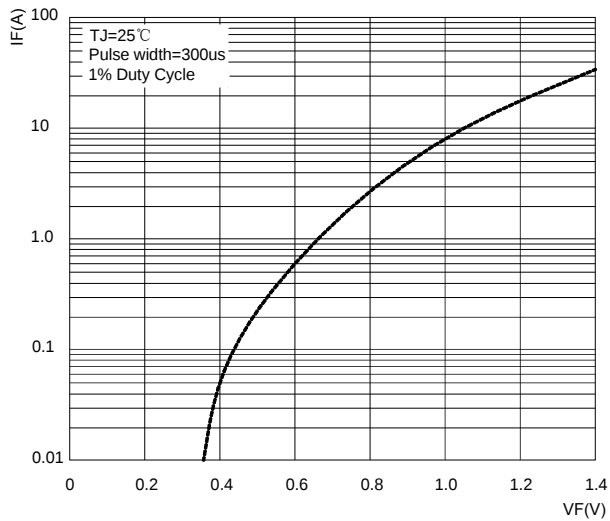
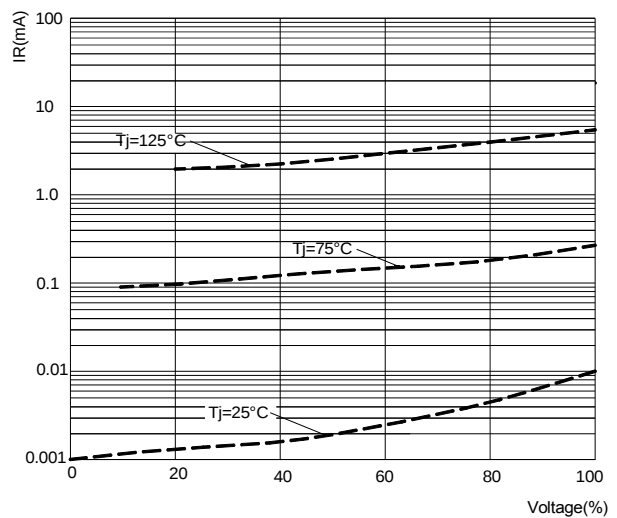


FIG.4: TYPICAL REVERSE CHARACTERISTICS





**Package Outline Dimensions**  
**SMB(DO-214AA)**



*Dimensions in inches and (millimeters)*



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