

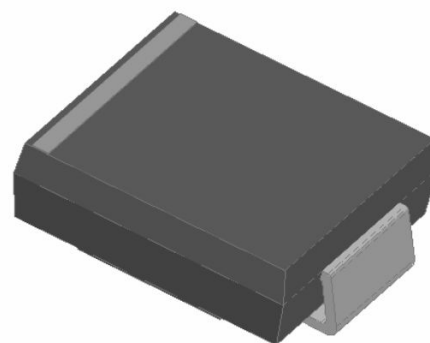
## General Purpose Rectifier

### Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 265 °C max. 10 s, per JESD 22-B106
- AEC-Q101 qualified (Automotive grade with suffix "Q".)

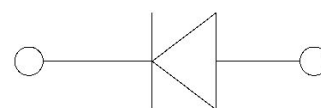
### Typical Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.



### Mechanical Data

- Package: SMC  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Color band denotes cathode end



### ■ Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER                                                                   | Symbol           | Unit             | S15        |     |     |     |     |     |      |
|-----------------------------------------------------------------------------|------------------|------------------|------------|-----|-----|-----|-----|-----|------|
|                                                                             |                  |                  | A          | B   | D   | G   | J   | K   | M    |
| Maximum Repetitive Peak Reverse Voltage                                     | $V_{RRM}$        | V                | 50         | 100 | 200 | 400 | 600 | 800 | 1000 |
| Maximum RMS Voltage                                                         | $V_{RMS}$        | V                | 35         | 70  | 140 | 280 | 420 | 560 | 700  |
| Maximum DC blocking Voltage                                                 | $V_{DC}$         | V                | 50         | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average Forward Current<br>@Half-sine wave, Resistance load, Tc(Fig.1)      | $I_o$            | A                | 15         |     |     |     |     |     |      |
| Forward Surge Current (Non-repetitive)<br>@60HZ sine wave, 1 cycle, Ta=25°C | $I_{FSM}$        | A                | 350        |     |     |     |     |     |      |
| Current squared time<br>@1ms≤t≤8.3ms Ta=25°C, Rating of per diode           | $I^2t$           | A <sup>2</sup> s | 508.4      |     |     |     |     |     |      |
| Thermal Resistance(Typical)<br>@Between junction and ambient                | $R_{\theta J-A}$ | °C/W             | 47         |     |     |     |     |     |      |
| Storage Temperature                                                         | $T_{stg}$        | °C               | -55 ~ +150 |     |     |     |     |     |      |
| Junction Temperature                                                        | $T_j$            | °C               | -55 ~ +150 |     |     |     |     |     |      |

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

| PARAMETER            | Symbol           | Unit | Conditions                   | S15 |   |   |   |   |   |   |
|----------------------|------------------|------|------------------------------|-----|---|---|---|---|---|---|
|                      |                  |      |                              | A   | B | D | G | J | K | M |
| Peak Forward Voltage | VFM              | V    | I F =15.0A                   | 1.1 |   |   |   |   |   |   |
| Peak Reverse Current | I <sub>RRM</sub> | μA   | VR =V <sub>DC</sub> @Ta=25℃  | 1   |   |   |   |   |   |   |
|                      |                  |      | VR =V <sub>DC</sub> @Ta=125℃ | 250 |   |   |   |   |   |   |

■ Characteristics (Typical)

FIG.1: Io-TL Curve

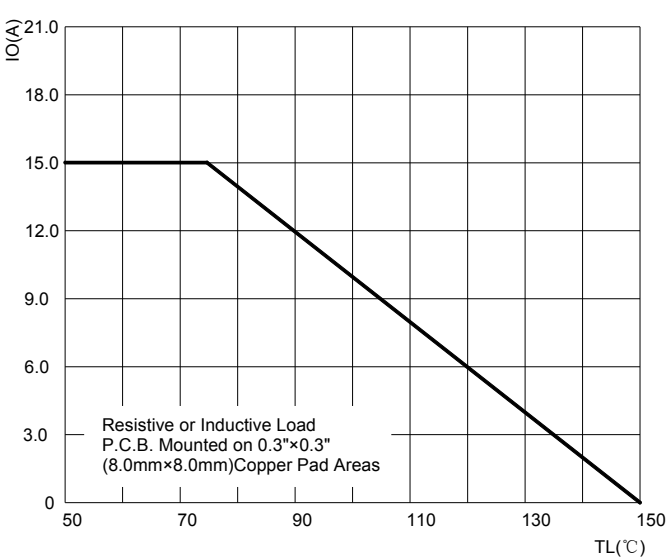


FIG.2: Forward Surge Current Capability

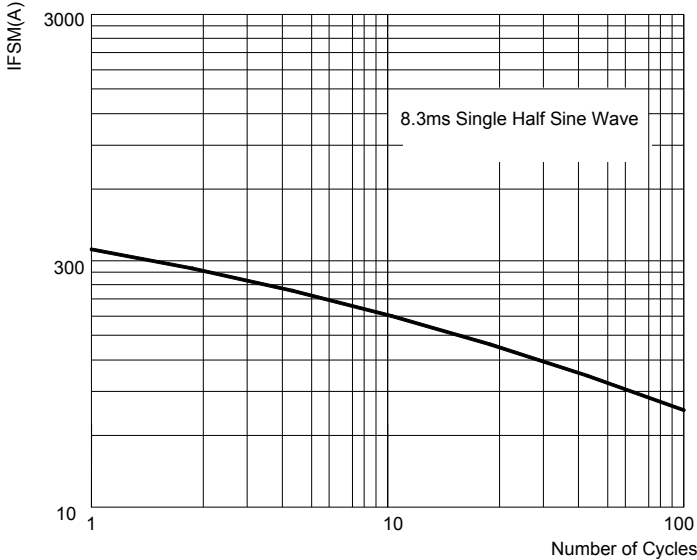


FIG.3: Forward Voltage

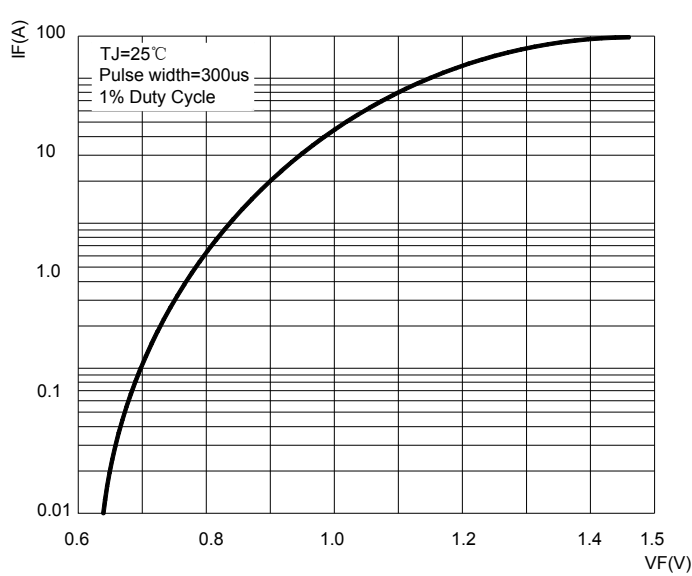
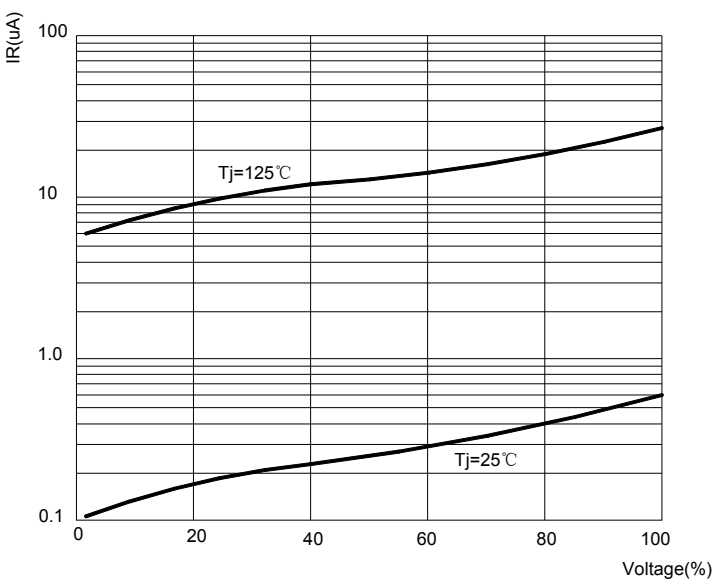


FIG.4: Typical Reverse Characteristics



■ Ordering Information (Example)

| PREFERED    | PACKAGE CODE | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|-------------|--------------|----------------------|-------------------------|----------------------------|---------------|
| S15A ~ S15M | SMC          | 3000                 | 6000                    | 42000                      | 13" reel      |

■ Outline Dimensions

