

## Silicon Power Schottky Diode

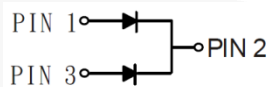
$V_{RRM} = 150\text{ V} - 200\text{ V}$

$I_{F(AV)} = 100\text{ A}$

### Features

- High Surge Capability
- Types from 150 V to 200V  $V_{RRM}$
- Isolated to Plate
- Not ESD Sensitive

TO-249AB Package



Maximum ratings, at  $T_j = 25\text{ °C}$ , unless otherwise specified

| Parameter                       | Symbol    | Conditions | FST100150  | FST100200  | Unit |
|---------------------------------|-----------|------------|------------|------------|------|
| Repetitive peak reverse voltage | $V_{RRM}$ |            | 150        | 200        | V    |
| RMS reverse voltage             | $V_{RMS}$ |            | 106        | 141        | V    |
| DC blocking voltage             | $V_{DC}$  |            | 150        | 200        | V    |
| Operating temperature           | $T_j$     |            | -55 to 150 | -55 to 150 | °C   |
| Storage temperature             | $T_{stg}$ |            | -55 to 150 | -55 to 150 | °C   |

Electrical characteristics, at  $T_j = 25\text{ °C}$ , unless otherwise specified

| Parameter                                                                    | Symbol      | Conditions                                    | FST100150 | FST100200 | Unit |
|------------------------------------------------------------------------------|-------------|-----------------------------------------------|-----------|-----------|------|
| Average forward current (per pkg)                                            | $I_{F(AV)}$ | $T_C = 125\text{ °C}$                         | 100       | 100       | A    |
| Peak forward surge current (per leg)                                         | $I_{FSM}$   | $t_p = 8.3\text{ ms}$ , half sine             | 1000      | 1000      | A    |
| Maximum instantaneous forward voltage (per leg)                              | $V_F$       | $I_{FM} = 50\text{ A}$ , $T_j = 25\text{ °C}$ | 0.88      | 0.92      | V    |
| Maximum Instantaneous reverse current at rated DC blocking voltage (per leg) | $I_R$       | $T_j = 25\text{ °C}$                          | 1         | 1         | mA   |
|                                                                              |             | $T_j = 100\text{ °C}$                         | 10        | 10        |      |
|                                                                              |             | $T_j = 150\text{ °C}$                         | 30        | 30        |      |

### Thermal characteristics

|                                               |                 |      |      |      |
|-----------------------------------------------|-----------------|------|------|------|
| Thermal resistance, junction - case (per leg) | $R_{\theta JC}$ | 1.10 | 1.10 | °C/W |
|-----------------------------------------------|-----------------|------|------|------|

Figure .1- Typical Forward Characteristics

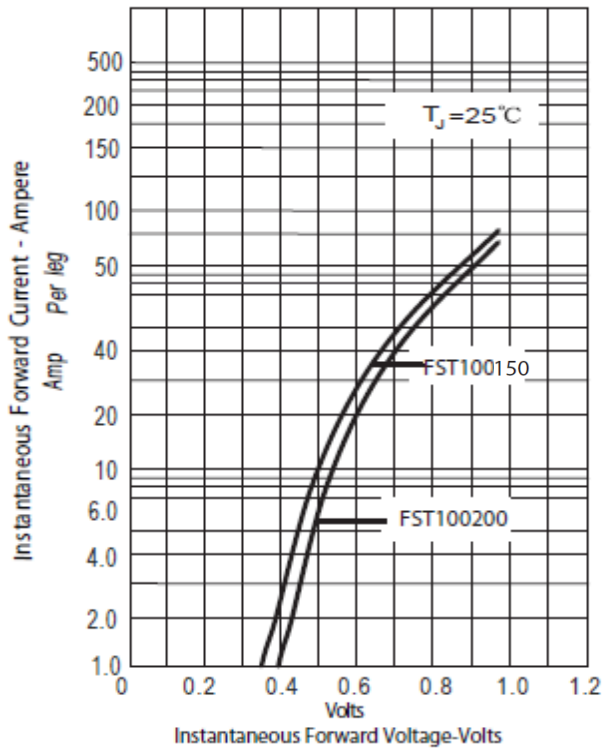


Figure .2- Forward Derating Curve

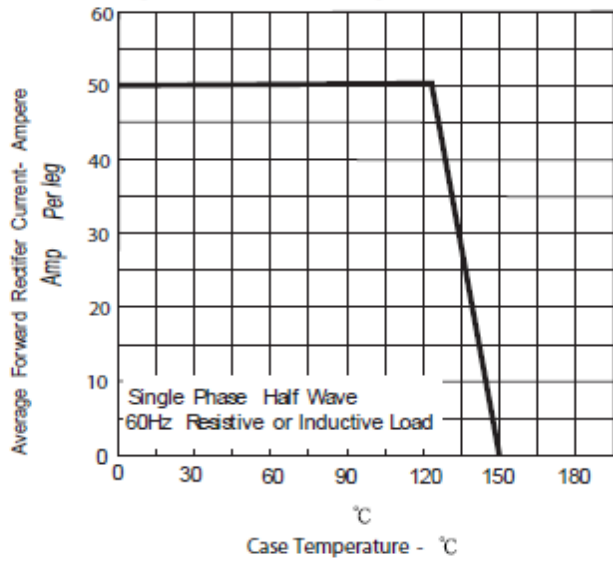


Figure.3-Peak Forward Surge Current

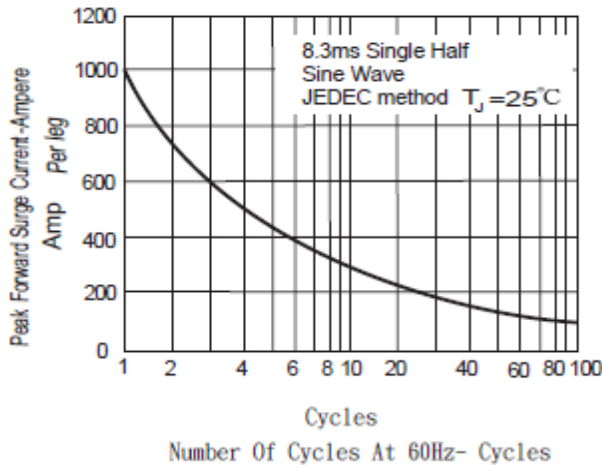
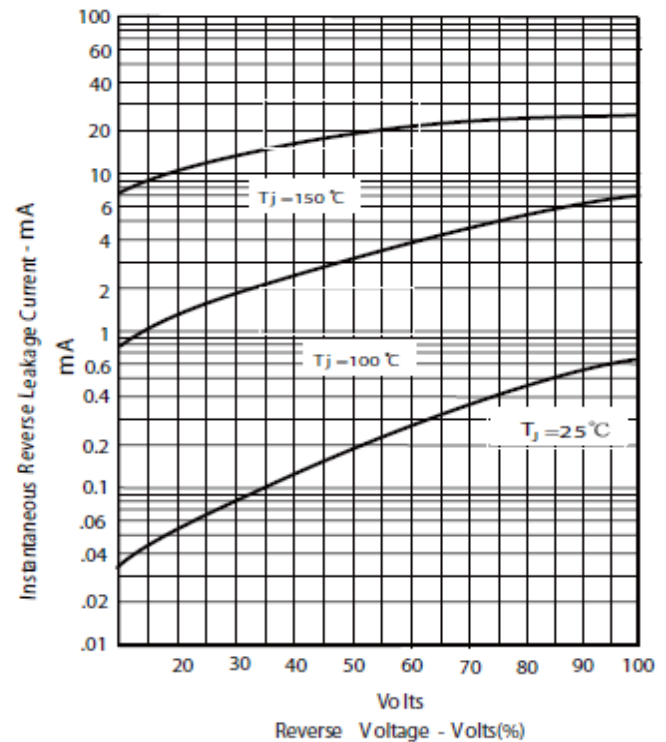
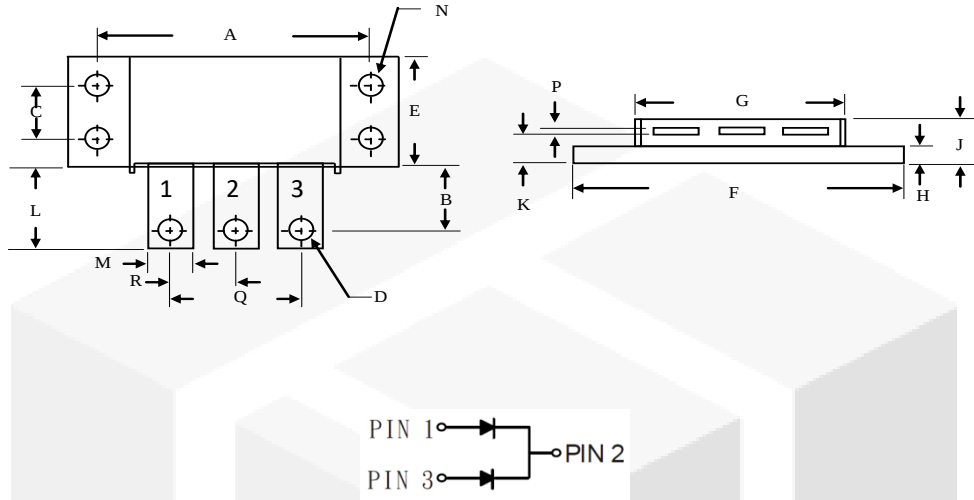


Figure .4- Typical Reverse Characteristics



## Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



|   | Inches |       | Millimeters |       |
|---|--------|-------|-------------|-------|
|   | Min    | Max   | Min         | Max   |
| A | 1.995  | 2.005 | 50.67       | 50.93 |
| B | 0.300  | 0.325 | 7.62        | 8.26  |
| C | 0.495  | 0.505 | 12.57       | 12.83 |
| D | 0.182  | 0.192 | 4.62        | 4.88  |
| E | 0.990  | 1.010 | 25.15       | 26.65 |
| F | 2.390  | 2.410 | 60.71       | 61.21 |
| G | 1.495  | 1.525 | 37.90       | 38.70 |
| H | 0.114  | 0.122 | 2.90        | 3.10  |
| J | -----  | 0.420 | -----       | 10.67 |
| K | 0.256  | 0.275 | 6.5         | 7.0   |
| L | 0.490  | 0.510 | 12.45       | 12.95 |
| M | 0.330  | 0.350 | 8.38        | 8.90  |
| N | 0.175  | 0.195 | 4.45        | 4.95  |
| P | 0.035  | 0.045 | 0.89        | 1.14  |
| R | 0.445  | 0.455 | 11.30       | 11.56 |
| Q | 0.890  | 0.910 | 22.61       | 23.11 |

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