

# Rectifier diode

## 1SR139-400 / 1SR139-600

### ●Applications

- 1) General purpose rectification
- 2) Surge absorption

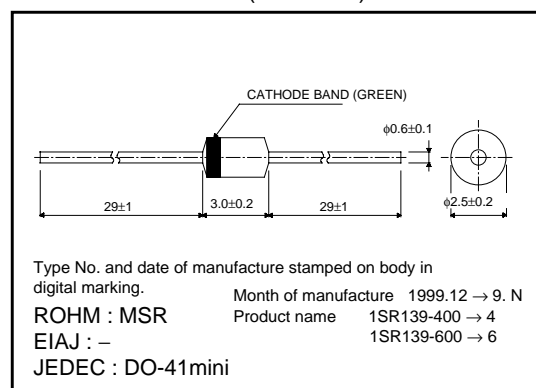
### ●Features

- 1) Cylindrical mold. (MSR)
- 2) Outstanding reverse surge capability.
- 3) High reliability.

### ●Construction

Silicon diffused junction

### ●External dimensions (Units : mm)



### ●Absolute maximum ratings (Ta = 25°C)

| Parameter                     |            | Symbol    | Limits   | Unit |
|-------------------------------|------------|-----------|----------|------|
| Absolute peak reverse voltage | 1SR139-400 | $V_{RSM}$ | 500      | V    |
|                               | 1SR139-600 |           | 750      |      |
| Peak reverse voltage          | 1SR139-400 | $V_{RM}$  | 400      | V    |
|                               | 1SR139-600 |           | 600      |      |
| Mean rectifying current       |            | $I_O$     | 1.0      | A    |
| Peak forward surge current *  |            | $I_{FSM}$ | 40       | A    |
| Junction temperature          |            | $T_J$     | 150      | °C   |
| Storage temperature           |            | $T_{stg}$ | -40~+150 | °C   |

\*60 Hz for 1  $\mu$ s

### ●Electrical characteristics (Ta = 25°C)

| Parameter       | Symbol     | Min. | Typ. | Max. | Unit    | Conditions |
|-----------------|------------|------|------|------|---------|------------|
| Forward voltage | $V_F$      | -    | -    | 1.1  | V       | $I_F=1.0A$ |
| Reverse current | 1SR139-400 | -    | -    | 10   | $\mu A$ | $V_R=400V$ |
|                 | 1SR139-600 | -    | -    | 10   |         | $V_R=600V$ |

Diodes

●Electrical characteristic curves (Ta = 25°C)

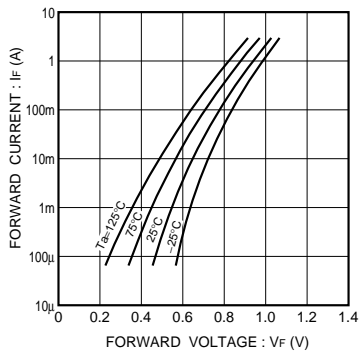


Fig. 1 Forward characteristics

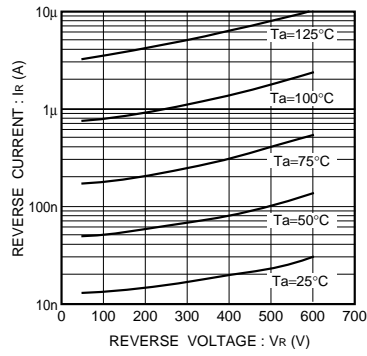


Fig. 2 Reverse characteristics

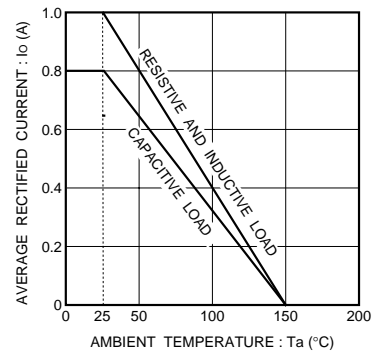


Fig. 3 Derating curve

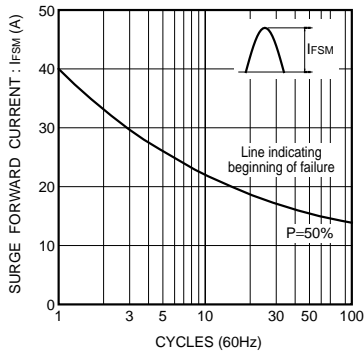


Fig. 4 Surge current characteristics