

## 12kV 5mA HIGH VOLTAGE DIODES

ESJA52-12A is high reliability resin molded type high voltage diode in small size package which is sealed a multilayered mesa type silicon chip by epoxy resin.

### Features

- High speed switching
- High Current
- High surge resistivity for CRT discharge
- High reliability design
- High Voltage

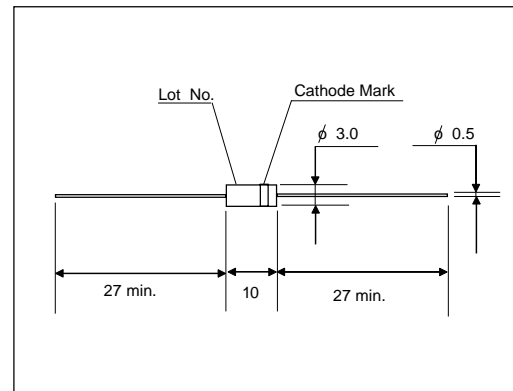
### Applications

- X light Power supply
- Laser
- Voltage doubler circuit
- Microwave emission power

### Maximum Ratings and Characteristics

- Absolute Maximum Ratings

### Outline Drawings : mm



### Cathode Mark

| Type       | Mark |
|------------|------|
| ESJA52-12A |      |

| Items                                | Symbols   | Condition                                 | ESJA52-12A  | Units              |
|--------------------------------------|-----------|---|-------------|--------------------|
| Repetitive Peak Reverse Voltage      | $V_{RRM}$ |   | 12          | kV                 |
| Average Output Current               | $I_o$     | $T_a=25^{\circ}\text{C}$ , Resistive Load | 5.0         | mA                 |
| Surge Current                        | $I_{FSM}$ |   | 0.5         | A <sub>peak</sub>  |
| Junction Temperature                 | $T_j$     |   | 125         | $^{\circ}\text{C}$ |
| Allowable Operation Case Temperature | $T_c$     |   | 125         | $^{\circ}\text{C}$ |
| Storage Temperature                  | $T_{stg}$ |   | -40 to +125 | $^{\circ}\text{C}$ |

### Electrical Characteristics ( $T_a=25^{\circ}\text{C}$ Unless otherwise specified)

| Items                         | Symbols  | Conditions  | ESJA52-12A | Units         |
|-------------------------------|----------|---|------------|---------------|
| Maximum Forward Voltage Drop  | $V_F$    | at $25^{\circ}\text{C}$ , $I_F = I_{F(AV)}$                 | 35         | V             |
| Maximum Reverse Current       | $I_{R1}$ | at $25^{\circ}\text{C}$ , $V_R = V_{RRM}$                   | 2.0        | $\mu\text{A}$ |
|                               | $I_{R2}$ | at $100^{\circ}\text{C}$ , $V_R = V_{RRM}$                  | 5.0        | $\mu\text{A}$ |
| Maximum Reverse Recovery Time | $T_{rr}$ | at $25^{\circ}\text{C}$                                     | 80         | nS            |
| Junction Capacitance          | $C_j$    | at $25^{\circ}\text{C}$ , $V_R=0\text{V}$ , $f=1\text{MHz}$ | 2.0        | pF            |