

# ESJA09-12

(12kV/5mA)

## HIGH VOLTAGE DIODE

**ESJA09** 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
- Low VF
- High surge resisitivity for CRT discharge
- High reliability design
- Ultra small pakage

### Applications

- Rectification for CRT display monitor high voltage power supply (FBT:Flyback Transformer)

### Maximum Ratings and Characteristics

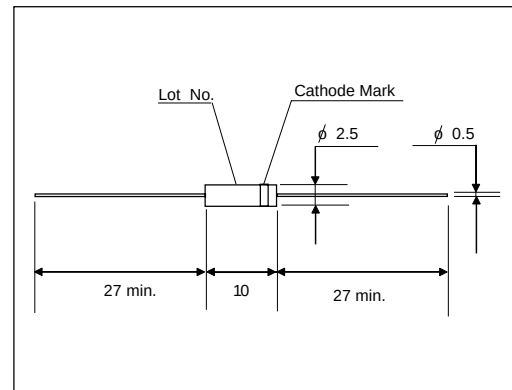
- Absolute Maximum Ratings

| Items                                | Symbols   | Condition                                 | ESJA09-12   | Units              |
|--------------------------------------|-----------|-------------------------------------------|-------------|--------------------|
| Repetitive Peak Renerse Voltage      | $V_{RRM}$ |                                           | 12          | kV                 |
| Average Output Current               | $I_o$     | $T_a=25^{\circ}\text{C}$ , Resistive Load | 5           | mA                 |
| Suege Current                        | $I_{FSM}$ | 10mS Sine-half wave peak value            | 0.5         | $A_{peak}$         |
| Junction Temperature                 | $T_j$     |                                           | 120         | $^{\circ}\text{C}$ |
| Allowable Operation Case Temperature | $T_c$     |                                           | 100         | $^{\circ}\text{C}$ |
| Storage Temperature                  | $T_{stg}$ |                                           | -40 to +120 | $^{\circ}\text{C}$ |

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

| Items                         | Symbols  | Conditions                                                    | ESJA09-12 | Units         |
|-------------------------------|----------|---------------------------------------------------------------|-----------|---------------|
| Maximum Forward Voltage Drop  | $V_F$    | at $25^{\circ}\text{C}$ , $I_F=10\text{mA}$                   | 42        | V             |
| Maximum Reverse Current       | $I_{R1}$ | at $25^{\circ}\text{C}$ , $V_R=12\text{kV}$                   | 2         | $\mu\text{A}$ |
|                               | $I_{R2}$ | at $100^{\circ}\text{C}$ , $V_R=12\text{kV}$                  | 5         | $\mu\text{A}$ |
| Maximum Reverse Recovery Time | $t_{rr}$ | at $25^{\circ}\text{C}$ , $I_F=2\text{mA}$ , $I_R=4\text{mA}$ | 0.05      | $\mu\text{s}$ |
| Junction Capacitance          | $C_j$    | at $25^{\circ}\text{C}$ , $V_R=0\text{V}$ , $f=1\text{MHz}$   | 1         | pF            |

### Outline Drawings : mm

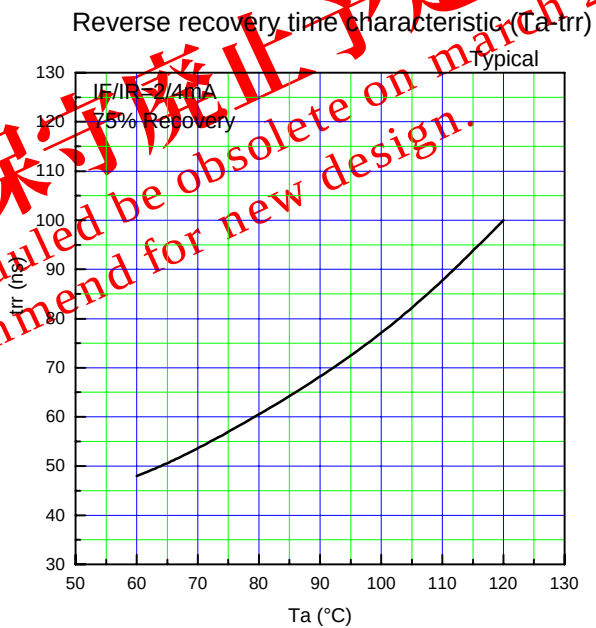
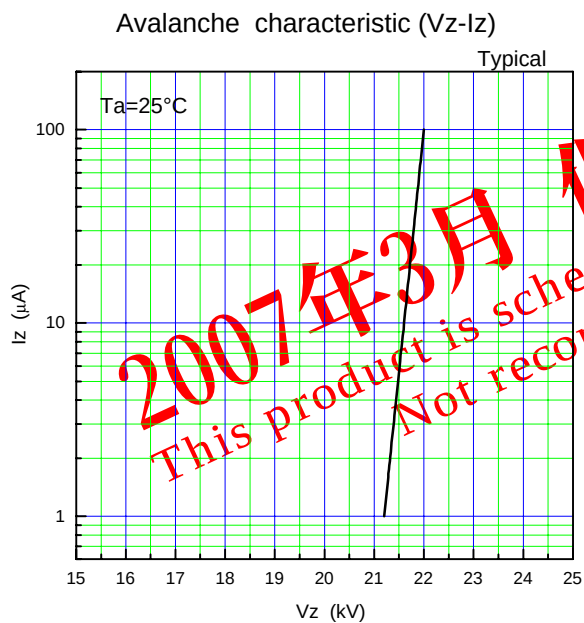
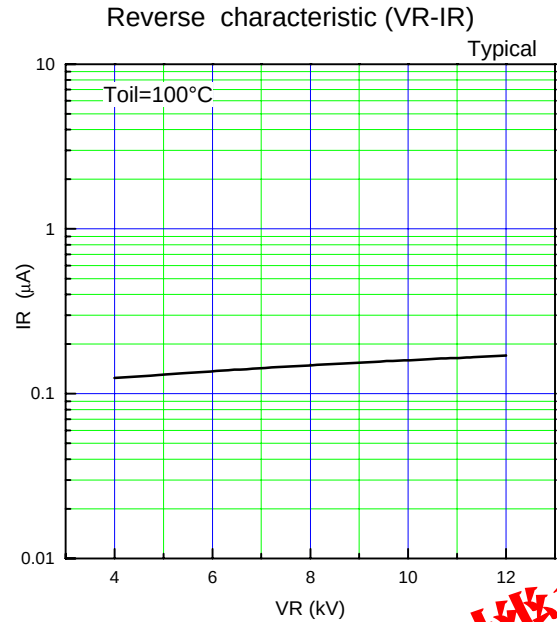
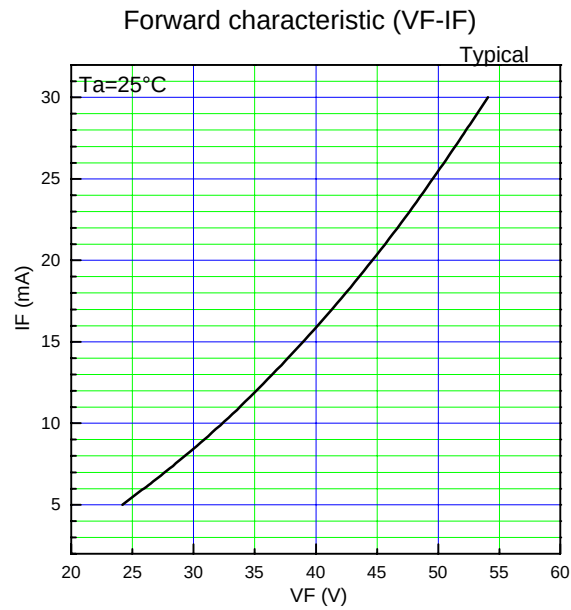


### Cathode Mark

| Type      | Mark |
|-----------|------|
| ESJA09-12 |      |

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## Characteristics



2007年3月 保守廃止予定機種  
This product is scheduled to be obsolete on March 2007.  
Not recommend for new design.