

# 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 resistivity for CRT discharge
- High reliability design
- Ultra small package

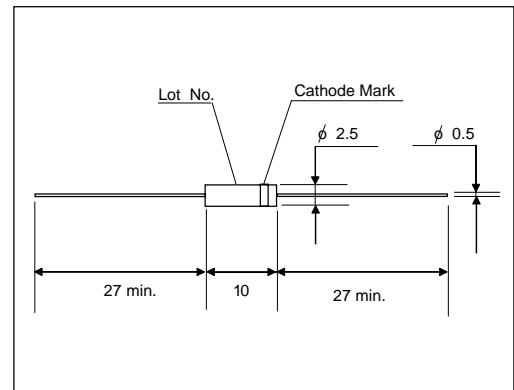
### Applications

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

### Maximum Ratings and Characteristics

- Absolute Maximum Ratings

### Outline Drawings : mm



### Cathode Mark

Type	Mark
ESJA09-12	

Items	Symbols	Condition	ESJA09-12	Units
Repetitive Peak Reverse Voltage	$V_{RRM}$		12	kV
Average Output Current	$I_o$	$T_a=25^{\circ}\text{C}$ , Resistive Load	5	mA
Surge 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)

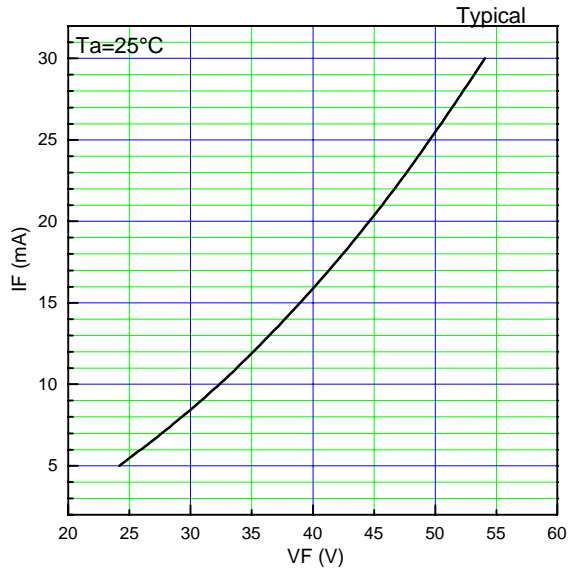
Items	Symbols	Conditions	ESJA09-12	Units
Maximum Forward Voltage Drop	$V_F$	at $25^{\circ}\text{C}$ , $I_F=10\text{mA}$	42	V
Maximum Reverse Current	$I_{R1}$	at $25^{\circ}\text{C}$ , $V_R=12\text{kV}$	2	$\mu\text{A}$
	$I_{R2}$	at $100^{\circ}\text{C}$ , $V_R=12\text{kV}$	5	$\mu\text{A}$
Maximum Reverse 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

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.

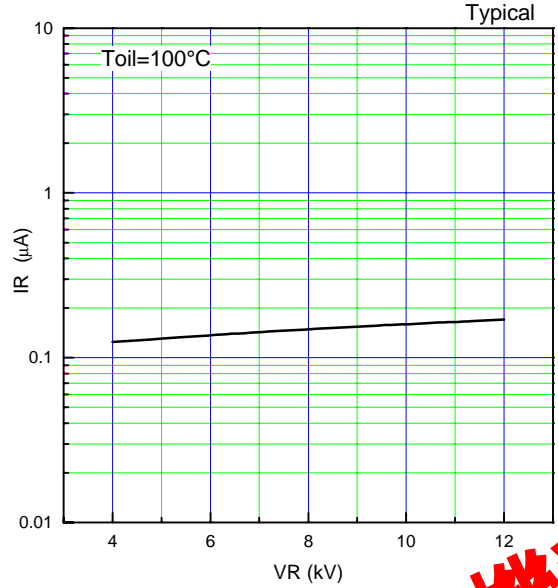
# ESJA09-12 (12kV/5mA)

## Characteristics

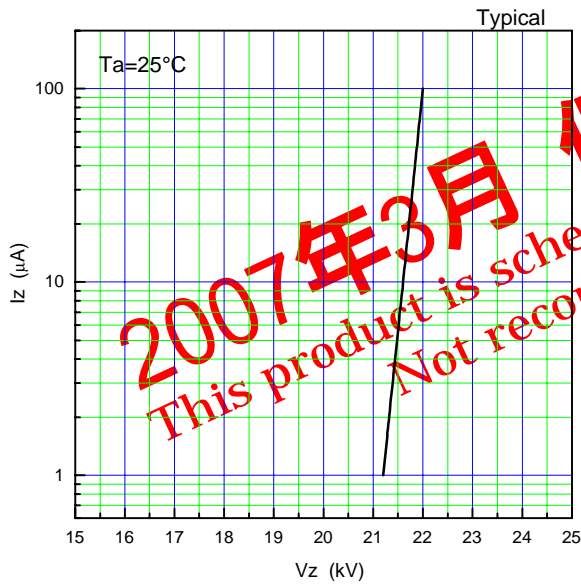
Forward characteristic (VF-IF)



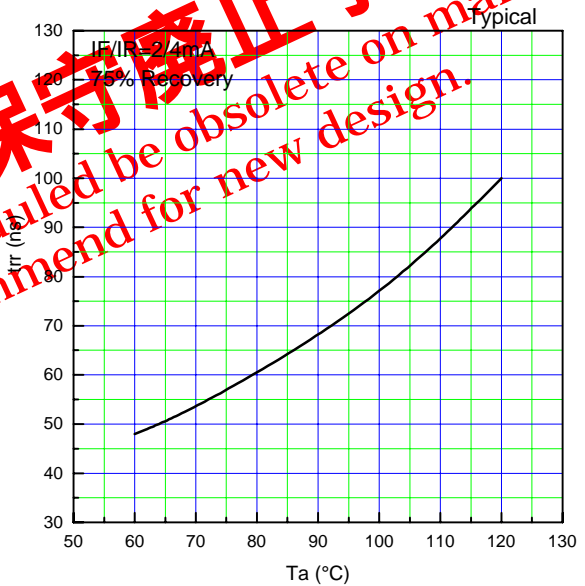
Reverse characteristic (VR-IR)



Avalanche characteristic (Vz-Iz)



Reverse recovery time characteristic (Ta-trr)



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