

# ESJC01 (9kV, 12kV)

## : Outline Drawings

### HIGH VOLTAGE SILICON DIODE

ESJC01 is high reliability and high current capability type resin molded high voltage silicon diode which is sealed a multilayered mesa type silicon chip by epoxy resin.

#### ■ : Features

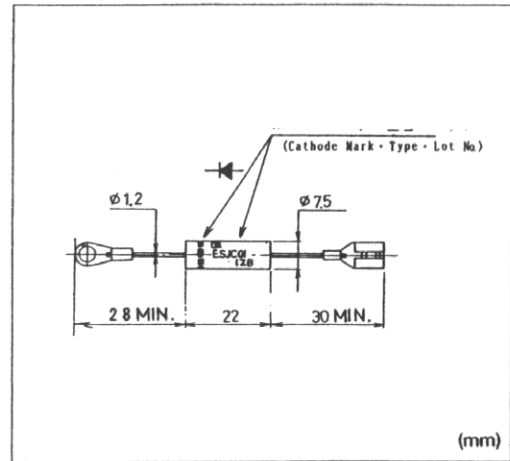
- Small size
- High current capability
- High reliability
- Attached fasten terminal

#### ■ : Applications

Rectification for high voltage power supply of magnetron in micro wave oven range.

Rectification for high voltage power supply of X-ray generator.

Others.



## : Cathode Mark

Type	Mark
ESJC01-09B	⚡
ESJC01-12B	⚡

## : Maximum Ratings and Characteristics

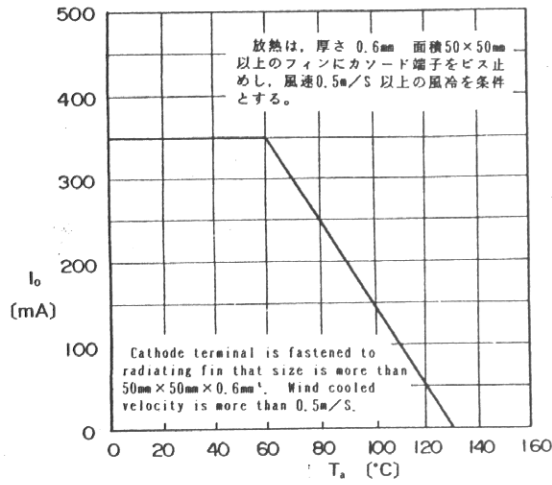
### : Absolute Maximum Ratings

Items	Symbols	ESJC01		Units	Conditions
		-09B	-12B		
Repetitive Peak Reverse Voltage	$V_{RRM}$	9	12	kV	
Average Forward Current	$I_{F(AV)}$	350		mA	$T_a = 60^\circ\text{C}$ , Resistive Load (RL)
Surge Current	$I_{FSM}$	30		A <sub>p</sub>	60Hz, One shot surge of 60Hz half sine wave.
Reverse Surge Current	$I_{RSM}$	100		mA <sub>p</sub>	$W_p = 1\text{msec}$ , $T_a = 25^\circ\text{C}$ One shot surge of $W_p$ 1ms triangular wave
Allowable Junction Temperature	$T_j$	130		$^\circ\text{C}$	
Storage Temperature	$T_{stg}$	-40~130		$^\circ\text{C}$	

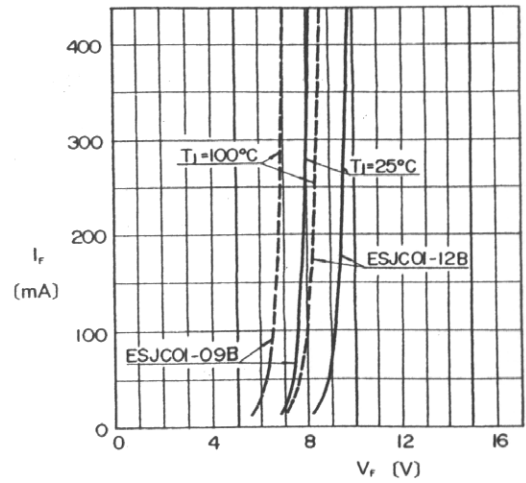
### : Electrical Characteristics

Items	Symbols	ESJC01		Units	Conditions
		-09B	-12B		
Forward Voltage Drop	$V_F$	10	12	V	$T_j = 25^\circ\text{C}$ , $I_F = 350\text{mA}$
Reverse Current	$I_R$	5		$\mu\text{A}$	$T_j = 25^\circ\text{C}$ , $V_R = V_{RRM}$
Avalanche Breakdown Voltage	$V_{AV}$	9.5~15	12.5~18	kV	$T_j = 25^\circ\text{C}$ , $I_R = 100\mu\text{A}$

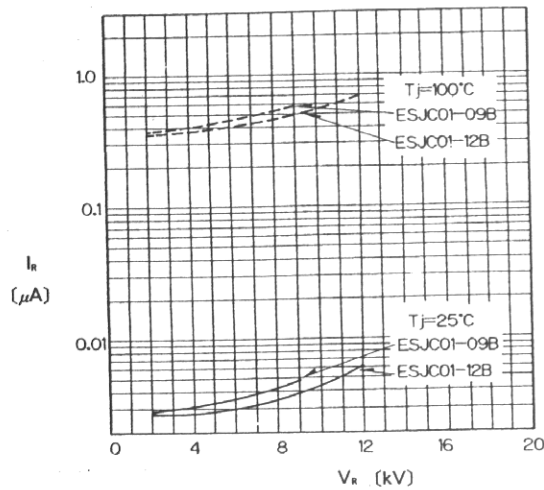
: Characteristics



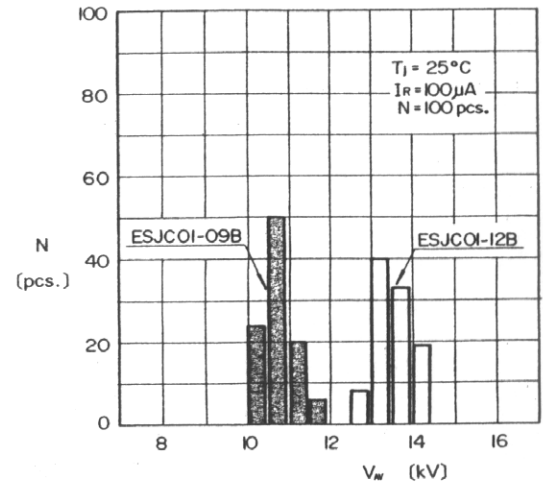
Current Derating Curve



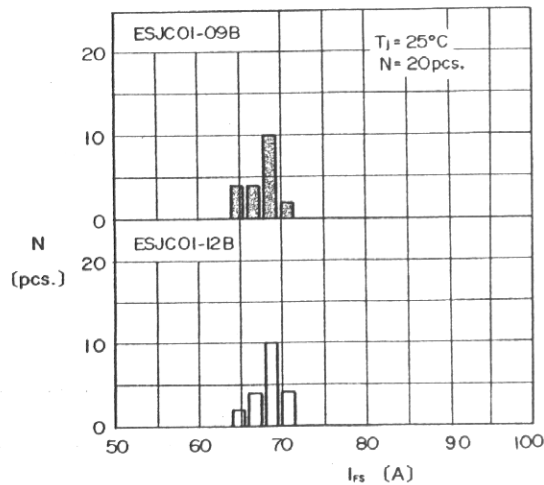
Forward Characteristics



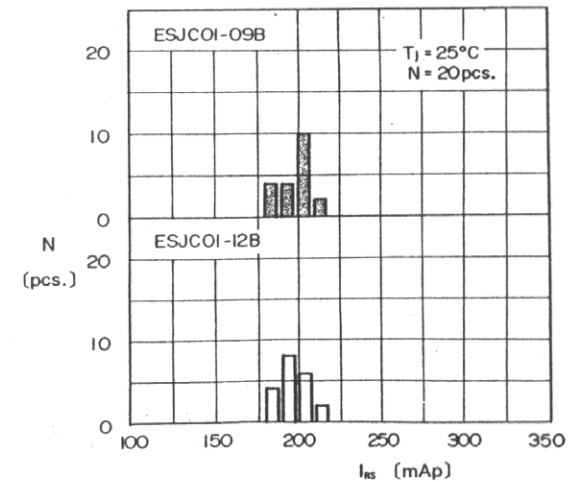
Reverse Characteristics



Avalanche Breakdown Voltage



Forward Surge Current



Reverse Surge Current