

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

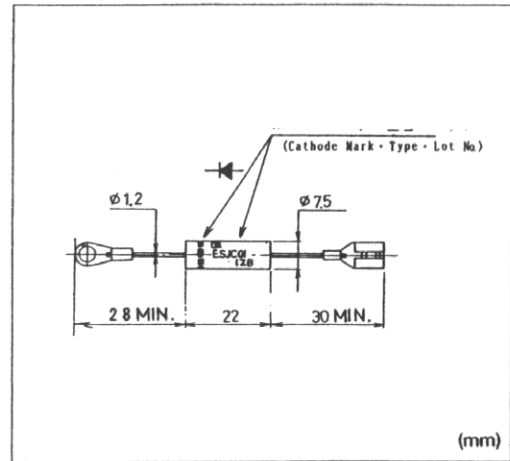
- Small size
- High current capability
- High reliability
- Attached fasten terminal

■ : 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

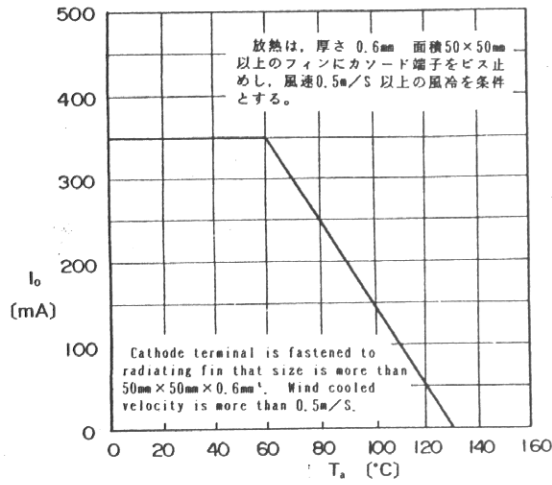
: Absolute Maximum Ratings

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_p	60Hz, One shot surge of 60Hz half sine wave.
Reverse Surge Current	I_{RSM}	100		mAp	$W_p = 1\text{msec}$. $T_a = 25^\circ\text{C}$ One shot surge of W_p 1ms triangular wave
Allowable Junction Temperature	T_j	130		$^\circ\text{C}$	
Storage Temperature	T_{stg}	-40~130		$^\circ\text{C}$	

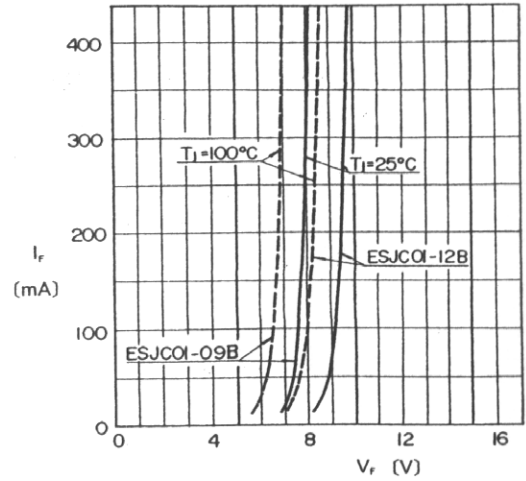
: Electrical Characteristics

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		μA	$T_j = 25^\circ\text{C}$, $V_R = V_{RRM}$
Avalanche Breakdown Voltage	V_{AV}	9.5~15	12.5~18	kV	$T_j = 25^\circ\text{C}$, $I_R = 100\mu\text{A}$

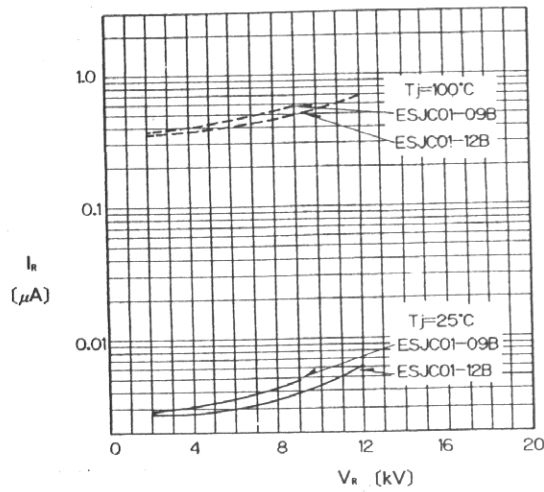
: Characteristics



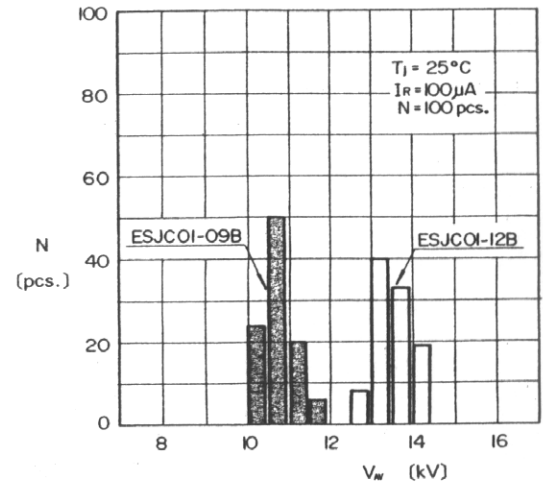
Current Derating Curve



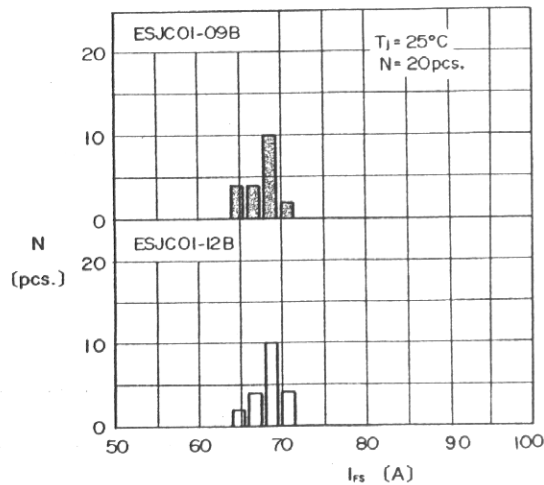
Forward Characteristics



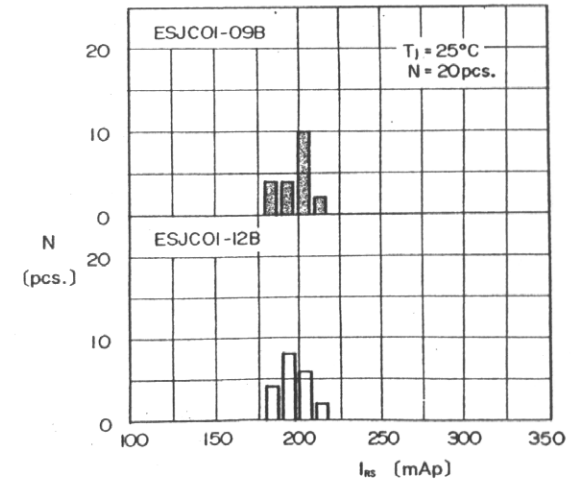
Reverse Characteristics



Avalanche Breakdown Voltage



Forward Surge Current



Reverse Surge Current