

HIGH VOLTAGE DIODE

ESJC13 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

- Low V_F
- High Surge proof resistivity
- High reliability .

Applications

- Rectification for Microwave oven high voltage power supply

Maximum Ratings and Characteristics

- Absolute Maximum Ratings

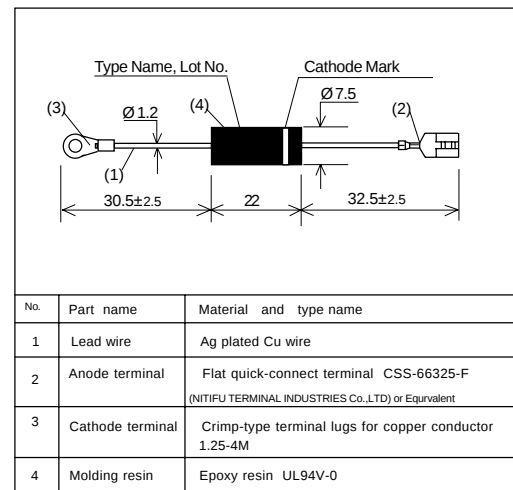
Items	Symbols	Conditions	ESJC13		Units
			-09B	-12B	
Repetitive Peak Reverse Voltage	V_{RRM}		9	12	kV
Average Forward Current	I_O	50HzSine half-wave average value. $T_a \leq 60^\circ\text{C}^*$	450	350	mA
Non-repetitive Peak Reverse Current	I_{RSM}	$W_p=1\text{mS}$.Rectangular-wave. One-shot. $T_a=25^\circ\text{C}$	100		mA
Non-repetitive Peak Forward Current	I_{FSM}	50HzSine half-wave peak value. One-shot. $T_a=25^\circ\text{C}$	30		A
Allowable Junction Temperature	T_j		130		$^\circ\text{C}$
Storage Temperature Range	T_g		-40 to +130		$^\circ\text{C}$

* Cooling Requirement: Cathode terminal is fastened to radiating fin
That size is more than 50mm×50mm×0.6mm Wind-cooled velocity is more than 0.5m/s.

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

Items	Symbols	Conditions	ESJC13		Units
			-09B	-12B	
Maximum Forward Voltage Drop	V_F	$I_F=350\text{mA}$	8	10	V
Maximum Reverse Current	I_R	$V_R=12\text{kV}$	5		μA
Minimum Avalanche Breakdown Voltage	V_Z	$I_Z=100\mu\text{A}$	9.5	12.5	kV

Outline Drawings

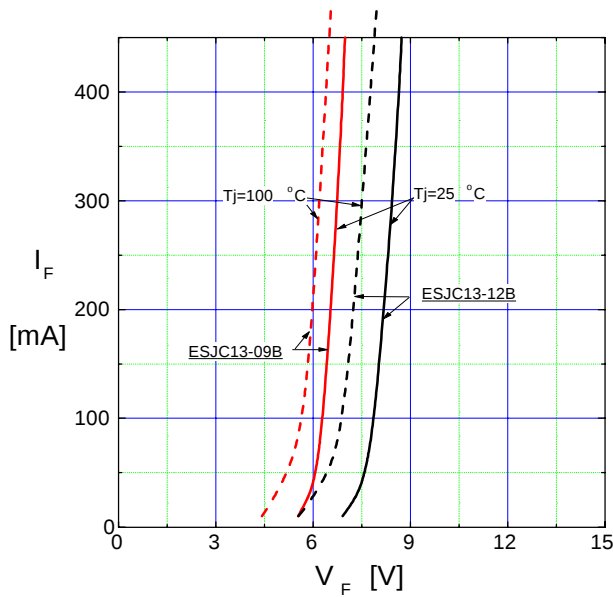


Cathode Mark

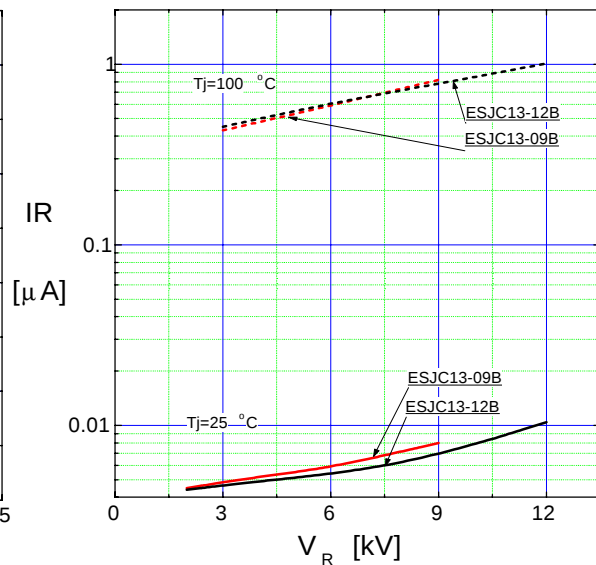
Type	Mark
ESJA13-09B	■ ■ ■ ■ ■ ■
ESJA13-12B	◆ ◆ ◆ ◆ ◆ ◆

ESJC13 (9kV/450mA,12kV/350mA)

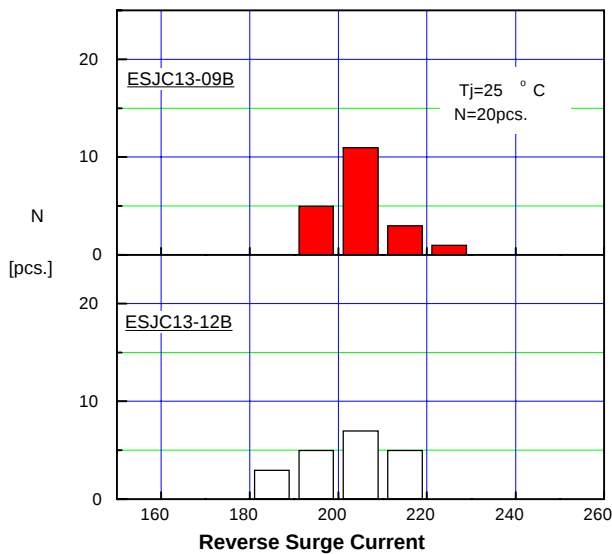
Characteristics



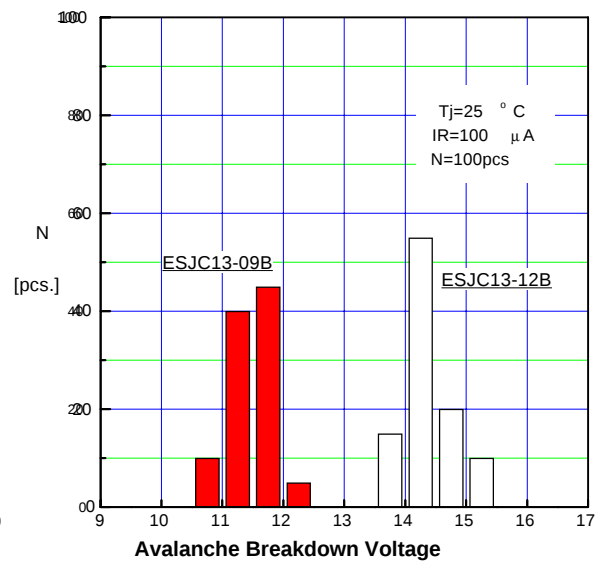
Forward Characteristics



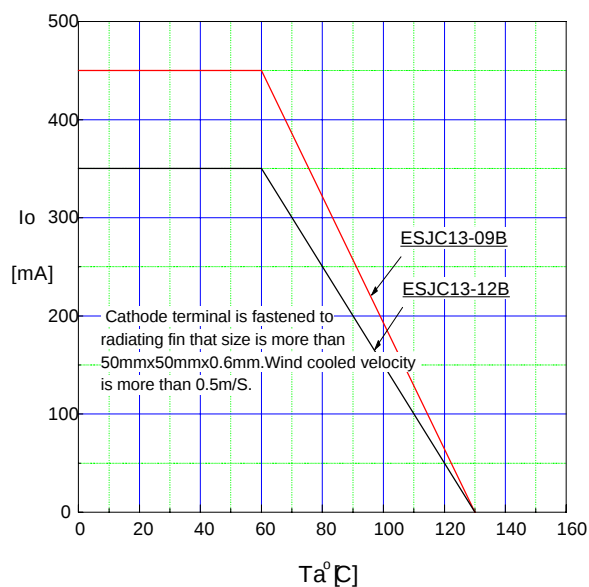
Reverse Characteristics



Reverse Surge Current



Avalanche Breakdown Voltage



Current Derating Curve