

ESJC13

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

HIGH VOLTAGE DIODE

ESJC13 type is a high reliability (a multilayered mesa type silicon chip) epoxy resin molded type high voltage diode in a small package size with terminals.

Features

- Low VF
- High Surge proof resistivity
- High reliability

Applications

- Rectification for Microwave oven high voltage power supply

Maximum Ratings and Characteristics

- Absolute Maximum Ratings

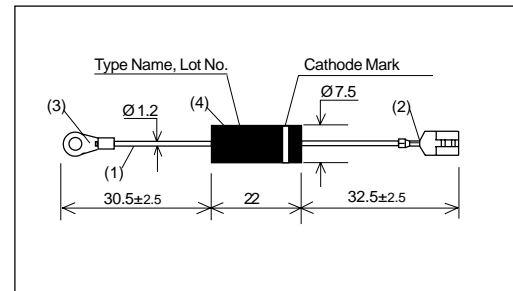
Items	Symbols	Conditions	ESJC13		Units
			-09B	-12B	
Repetitive Peak Reverse Voltage	V_{RRM}		9	12	kV
Average Forward Current	I_o	50HzSine half-wave average value. $T_a \leq 60^\circ\text{C}^*$	450	350	mA
Non-repetitive Peak Reverse Current	I_{RSM}	$W_p=1\text{mS}$.Rectangular-wave. One-shot. $T_a=25^\circ\text{C}$	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: The Cathode terminal is fastened to radiating fin size that is more than 50mm X 50mm X 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



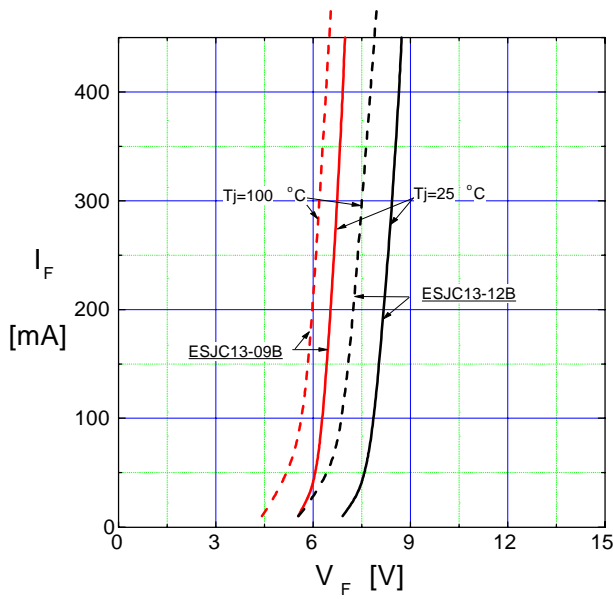
No.	Part name	Material and type name
1	Lead wire	Ag plated Cu wire
2	Anode terminal	Flat quick-connect terminal CSS-66325-F (NITIFU TERMINAL INDUSTRIES Co.,LTD) or Equivalent
3	Cathode terminal	Crimp-type terminal lugs for copper conductor 1.25-4M
4	Molding resin	Epoxy resin UL94V-0

Cathode Mark

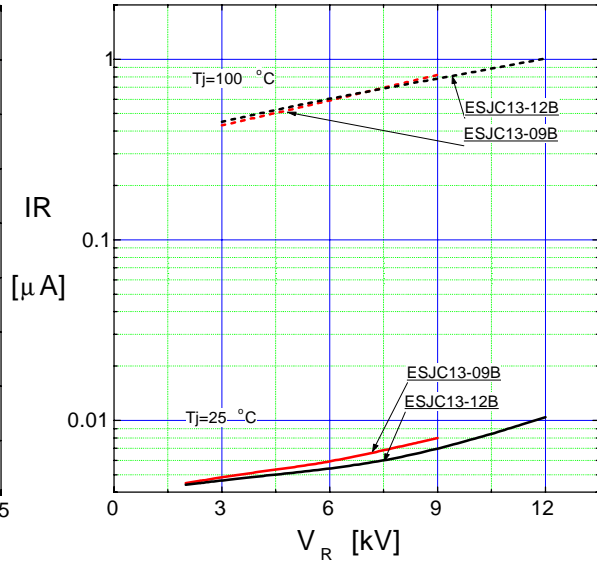
Type	Mark
ESJA13-09B	
ESJA13-12B	

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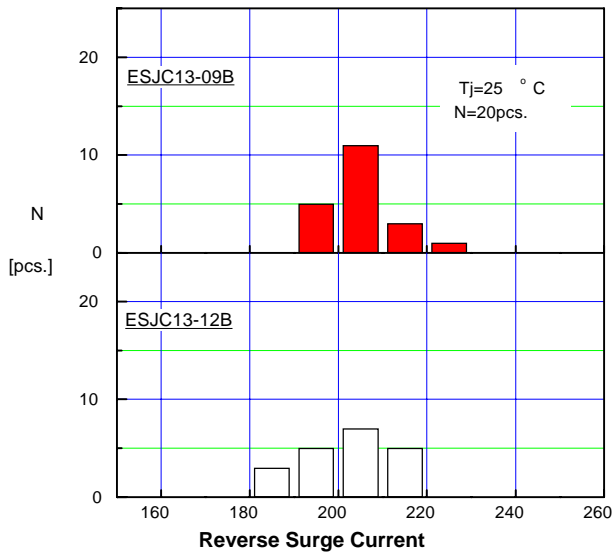
Characteristics



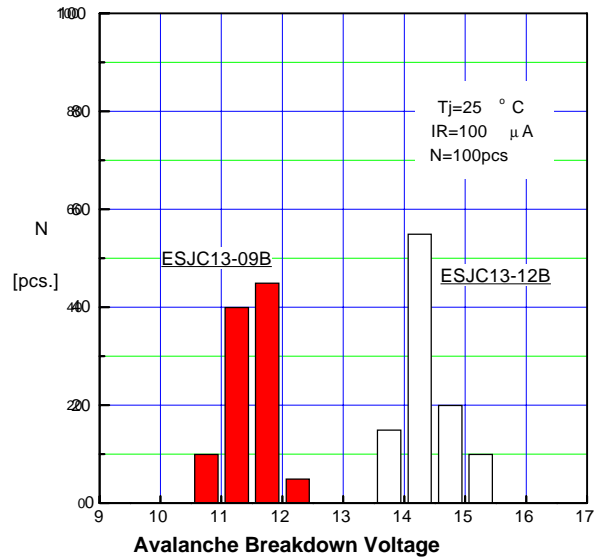
Forward Characteristics



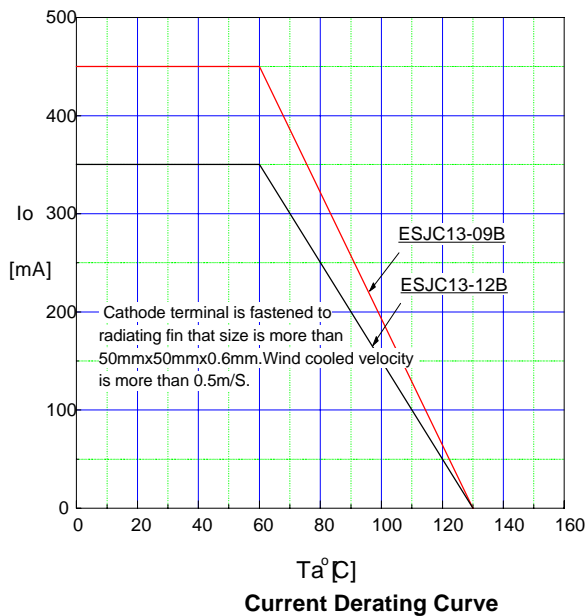
Reverse Characteristics



Reverse Surge Current



Avalanche Breakdown Voltage



Current Derating Curve