

# ESJC37 (5kV/540mA,8kV/410mA,10kV/310mA )

## HIGH VOLTAGE DIODE

**ESJC37** 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

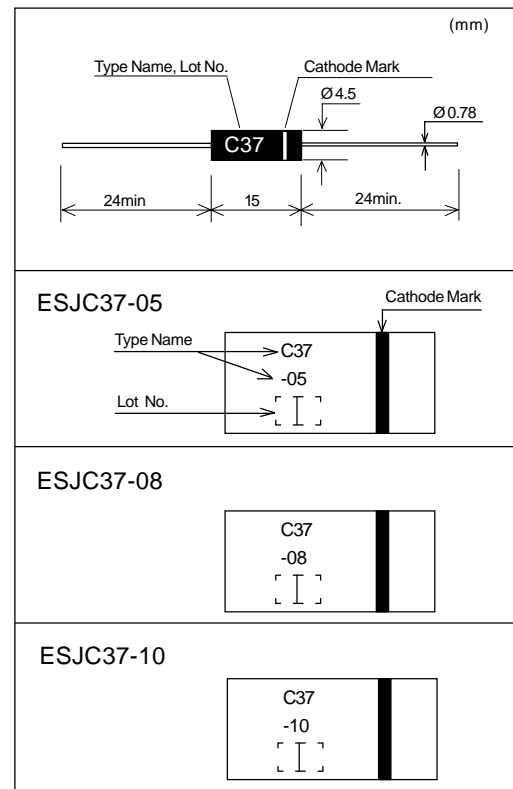
- Absolute Maximum Ratings

Items	Symbols	Conditions	ESJC37			Units
			-05	-08	-10	
Repetitive peak reverse voltage	$V_{RRM}$		5	8	10	kV <sub>peak</sub>
Average forward current	$I_o$	50Hz Sine half-wave average value. $T_{o1}=25^{\circ}\text{C}$	540	410	310	mA
Non-repetitive peak forward current	$I_{\text{surge}}$	50Hz Sine half-wave peak value, One-shot. $T_a=25^{\circ}\text{C}$	15	10	10	A <sub>peak</sub>
Allowable junction temperature	$T_j$		120			$^{\circ}\text{C}$
Storage temperature range	$T_{\text{stg}}$		-40 to +120			$^{\circ}\text{C}$
Case temperature	$T_c$		110			$^{\circ}\text{C}$

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

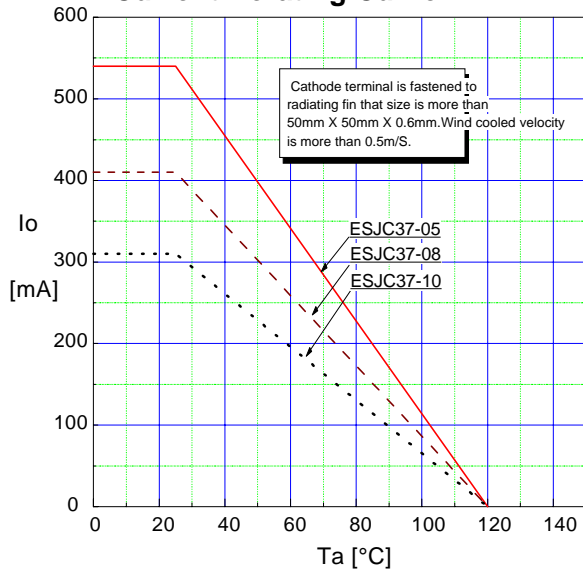
Items	Symbols	Conditions	ESJC37			Units
			-05	-08	-10	
Maximum forward voltage drop	$V_F$	$I_F=1\text{A}$	13	20	25	V
Maximum reverse current	$I_{R1}$	$V_R=5\text{kV}(-05), 8\text{kV}(-08)$ $10\text{kV}(-10) \quad T_a=25^{\circ}\text{C}$	2			$\mu\text{A}$
	$I_{R2}$	$V_R=5\text{kV}(-05), 8\text{kV}(-08)$ $10\text{kV}(-10) \quad T_a=100^{\circ}\text{C}$	10			$\mu\text{A}$
Reverse recovery time	$t_{rr}$	$I_F=0.1\text{A} \quad I_R=0.1\text{A} \quad 90\%$	0.3			$\mu\text{s}$
Minimum avalanche breakdown voltage	$V_Z$	$I_Z=100\mu\text{A}$	5.2	8.4	10.5	kV

### Outline Drawings

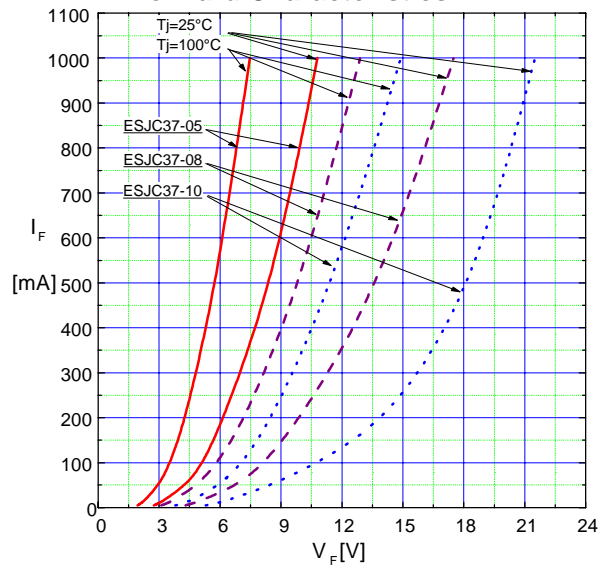


## Characteristics

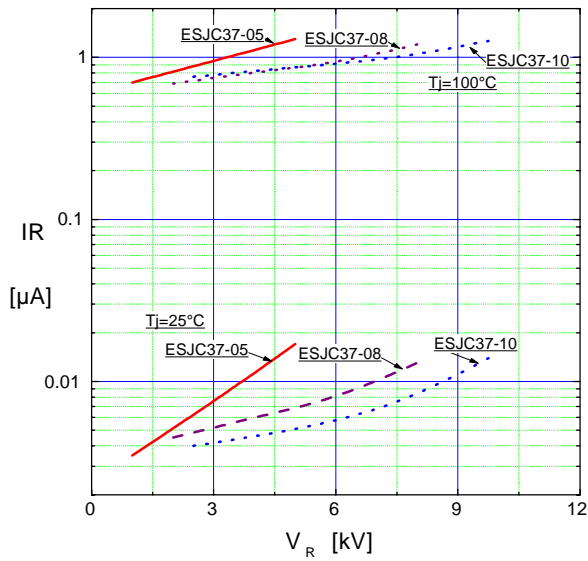
**Current Derating Curve**



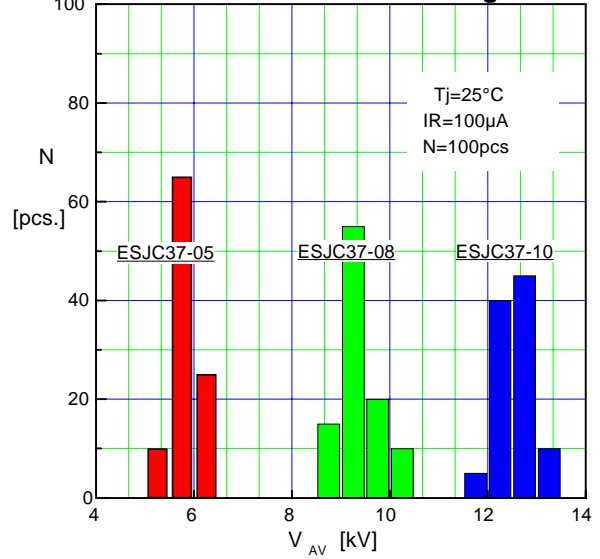
**Forward Characteristics**



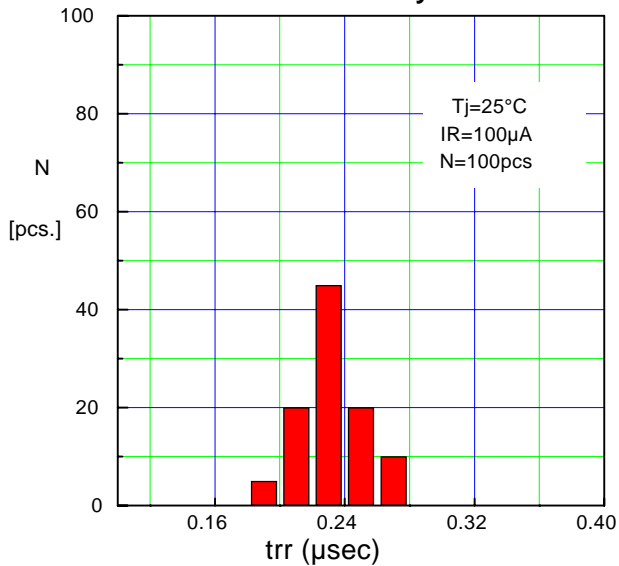
**Reverse Characteristics**



**Avalanche Breakdown Voltage**



**Reverse Recovery Time**



This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.