

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

HIGH VOLTEGE DIODE

ESJC37 is high reliability resin molded type high voltage diode in small size package which is sealed a multilayed mesa type silicon chip by epoxy resin.

Features

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

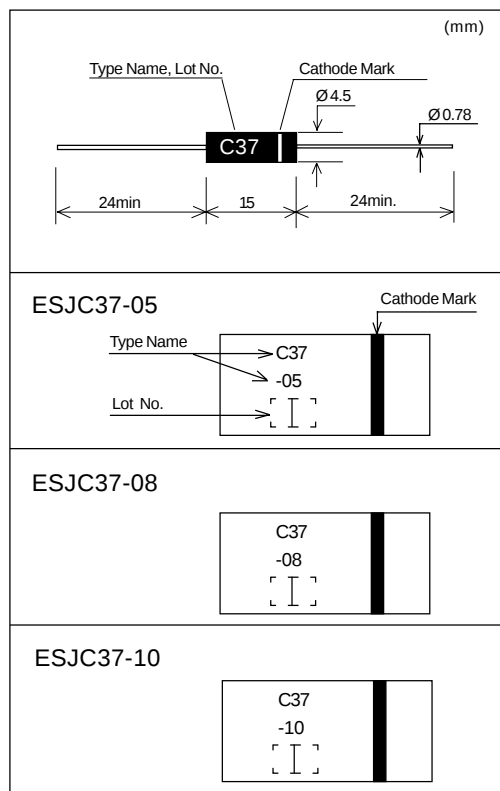
Applications

- Rectification for microwave oven—high voltage power supply

Maximum Ratings and Characteristics

- Absolute Maximum Ratings

Outline Drawings



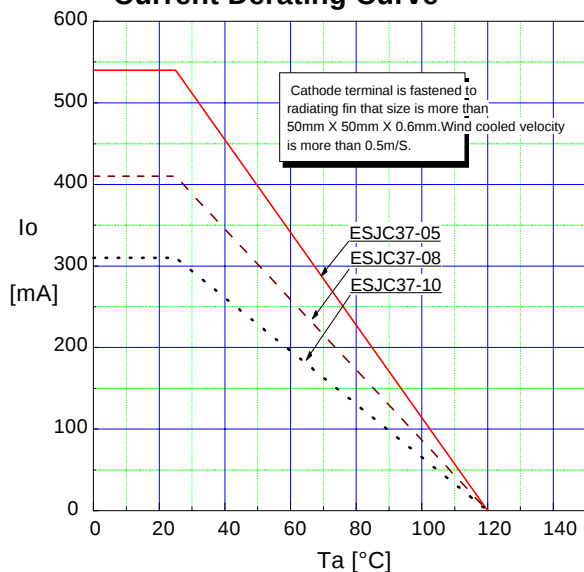
Items	Symbols	Conditions	ESJC37			Units
			-05	-08	-10	
Repetitive peak reverse voltage	V_{RRM}		5	8	10	kV _{peak}
Average forward current	I_o	50Hz Sine half-wave average value. $T_{oil} = 25^{\circ}C$	540	410	310	mA
Non-repetitive peak forward current	I_{surge}	50Hz Sine half-wave peak value, One-shot.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

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

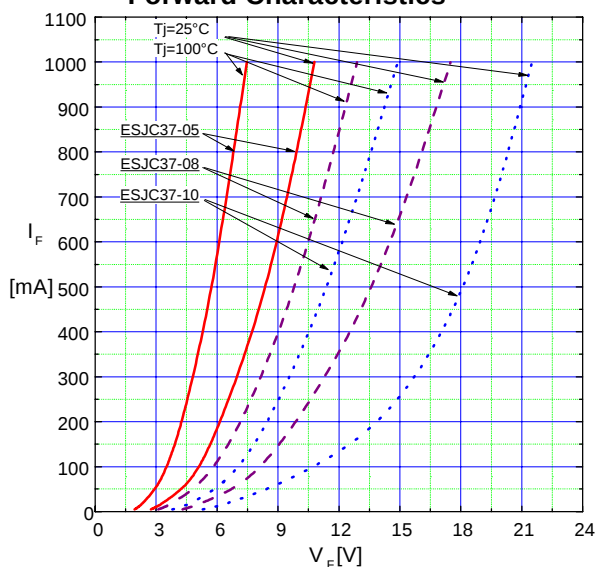
Items	Symbols	Conditions	ESJC37			Units
			-05	-08	-10	
Maximum forward voltage drop	V_F	$I_F = 1A$	13	20	25	V
Maximum reverse current	I_{R1}	$V_R = 5kV(-05), 8kV(-08), 10kV(-10) \quad T_a = 25^{\circ}C$	2			μA
	I_{R2}	$V_R = 5kV(-05), 8kV(-08), 10kV(-10) \quad T_a = 100^{\circ}C$	10			μA
Reverse recovery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

Characteristics

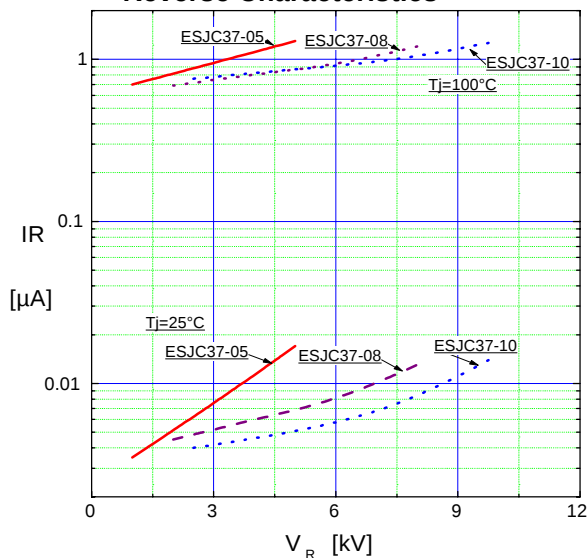
Current Derating Curve



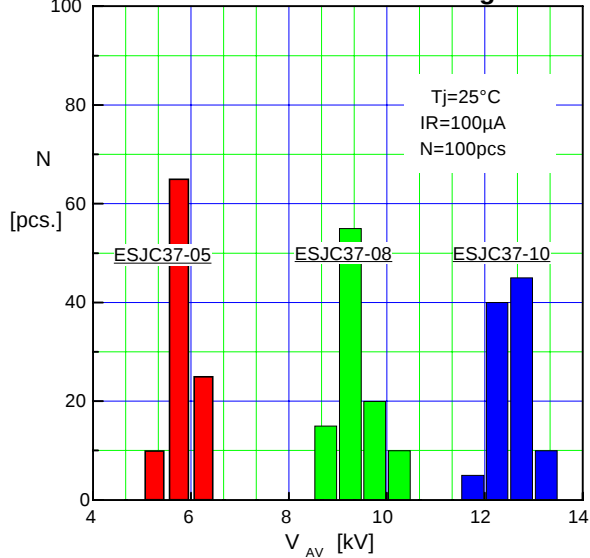
Forward Characteristics



Reverse Characteristics



Avalanche Breakdown Voltage



Reverse Recovery Time

