



LGE **RoHS COMPLIANT**

ESJC37-1 2F

300mA 12kV 80nS

Fast Recovery High Voltage Silicon Rectifier Diode

INTRODUCE:

HVGT high voltage silicon rectifier diodes is made of high quality silicon wafer chip and high reliability epoxy resin sealing structure, and through professional testing equipment inspection qualified after to customers.

FEATURES:

1. Fast switching.
2. High reliability.
3. High current capability.
4. Conform to RoHS and SGS.
5. Epoxy resin molded in vacuum Have anticorrosion in the surface.

APPLICATIONS:

1. Rectifier for high voltage power supply.
2. General purpose high voltage rectifier.
3. Rectification for X-ray generator high voltage power supply.

MECHANICAL DATA:

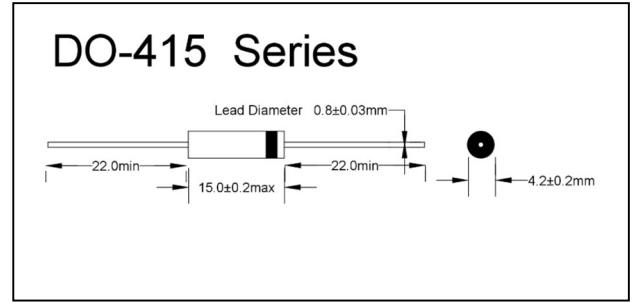
1. Case: epoxy resin molding.
2. Terminal: welding axis.
3. Net weight: 0.65 grams (approx).

MAXIMUM RATINGS AND CHARACTERISTICS: (Absolute Maximum Ratings)

Items	Symbols	Condition	Data Value	Units
Repetitive Peak Reverse Voltage	V_{RRM}	$T_A=25^{\circ}C$	12	kV
Non-Repetitive Peak Reverse Voltage	V_{RSM}	$T_A=25^{\circ}C$	--	kV
Average Forward Current Maximum	I_{FAVM}	$T_A=40^{\circ}C$	170	mA
		$T_{OIL}=55^{\circ}C$	300	mA
Non-Repetitive Forward Surge Current	I_{FSM}	$T_A=25^{\circ}C$; 60Hz Half-Sine Wave; 8.3ms	15	A
Junction Temperature	T_J		125	$^{\circ}C$
Allowable Operation Case Temperature	T_C		-40~ +125	$^{\circ}C$
Storage Temperature	T_{STG}		-40~ +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS: $T_A=25^{\circ}C$ (Unless Otherwise Specified)

Items	Symbols	Condition	Data value	Units
Maximum Forward Voltage Drop	V_{FM}	at $25^{\circ}C$; at 100mA	30	V
Maximum Reverse Current	I_{R1}	at $25^{\circ}C$; at V_{RRM}	2.0	μA
	I_{R2}	at $100^{\circ}C$; at V_{RRM}	10	μA
Maximum Reverse Recovery Time	T_{RR}	at $25^{\circ}C$; $I_F=0.5I_R$; $I_R=I_{FAVM}$; $I_{RR}=0.25I_R$	80	nS
Junction Capacitance	C_J	at $25^{\circ}C$; $V_R=0V$; $f=1MHz$	4.6	pF



Dimension in millimeters



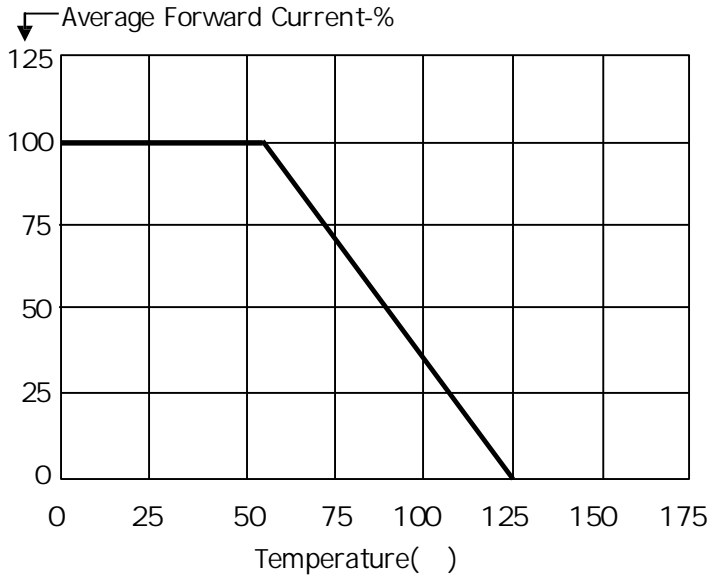
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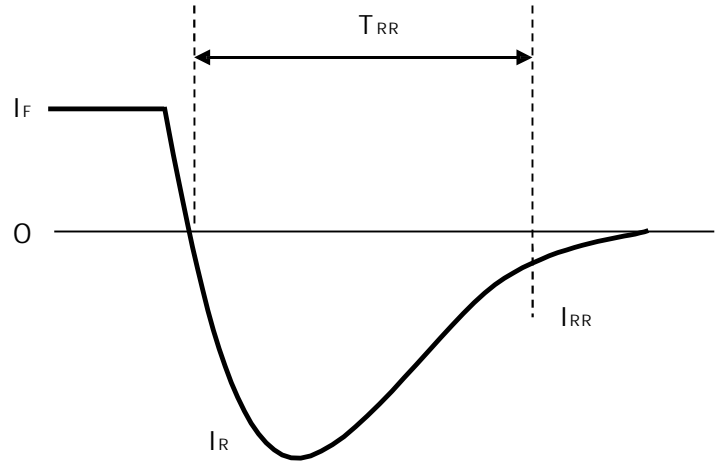
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Forward Current Derating Curve

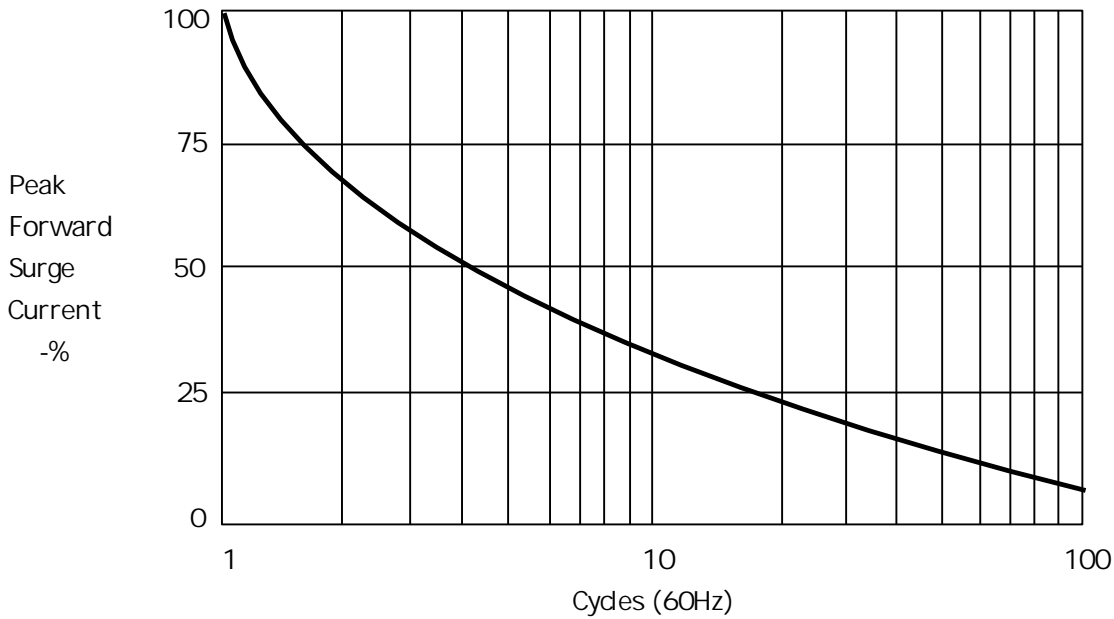


Reverse Recovery Measurement Waveform



Typical data capture points: $I_F = 0.5I_R$, $I_R, I_{RR} = 0.25I_R$
 I_R is typically the rated average forward current maximum (I_{FAVM}) of the D.U.T

Non-Repetitive Surge Current



Marking

Type	Code	Cathode Mark
ESJC37-12F	ESJC37-12F LGE	

