LLD06-E-41C

SINGLE PHASE GLASS PASSIVATED SURFACE MOUNT FLAT BRIDGE RECTIFIER

VOLTAGE: 600V **CURRENT: 0.8A**

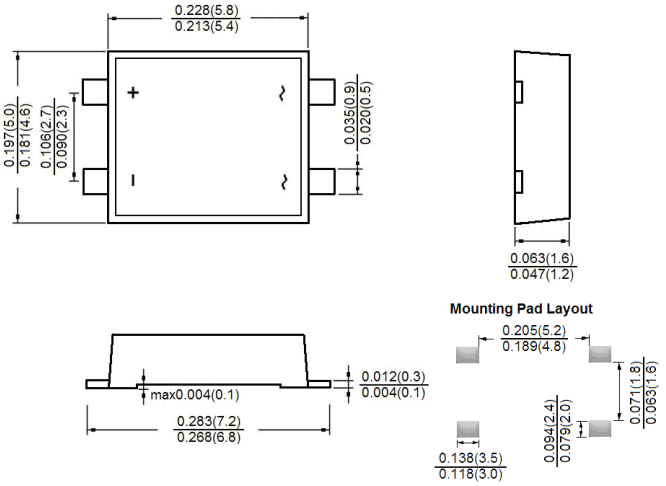
FEATURE

Low profile space
Ideal for automated placement
Glass passivated chip
Low forward voltage drop
Low leakage current
High forward surge capability
High temperature soldering: 260℃/10 seconds
Halogen Free

MECHANICAL DATA

Terminal: Plated leads solderable per J-STD-002
Case: Molded with UL-94 Class V-0 Halogen Free Epoxy
Polarity: Polarity symbol marked on body

LDF



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	LLD06-E-41C	Units
Maximum Recurrent Peak Reverse Voltage	Vrrm	600	V
Maximum RMS Voltage	Vrms	420	V
Maximum DC blocking Voltage	VDC	600	V
Maximum Average Forward Rectified Current at Ta =40°C	If(av)	0.8	A
Peak Forward Surge Current single half sine-wave superimposed on rated load	Ifsm	35	A
Inrush Current with 10Ω and 20uF foil capacitor placed in series to the DUT 10000 times, 10s between each pulse Tc=120℃	Ifsm-1	40min	A
Inrush Current with 10Ω and 20uF foil capacitor placed in series to the DUT 1000 times, 10s between each pulse Tc=120℃	Ifsm-2	50min	A
Maximum Instantaneous Forward Voltage at forward current 0.4A	Vf	1.0	V
Maximum DC Reverse Current at V_{DC}=325V and Tc =25℃	Ir	1.0	μA
Maximum DC Reverse Current Tc =25℃ at rated DC blocking voltage Tc =120℃	Ir	5.0 100.0	μA
Total power dissipatio (Note1)	Ptot	1.28	W
Typical Thermal resistance (Note2)	Rth(ja) Rth(jc) Rth(jl)	70 45 20	℃/W
Typical Junction Capacitance (Note3)	Cj	15.0	pF
Storage and Operating Junction Temperature Range	Tstg, Tj	-55 to +150	℃

Note:

1. Tc=25℃(according to calculations)
2. On aluminum substrate P.C.B. with an area of 0.8"×0.8"(20×20mm) mounted on 0.05×0.05"(1.3×1.3mm) solder pad
3. Measured at 1.0 MHz and applied voltage of 4.0 volt

Fig.1 Derating Curve For Output Rectified Current

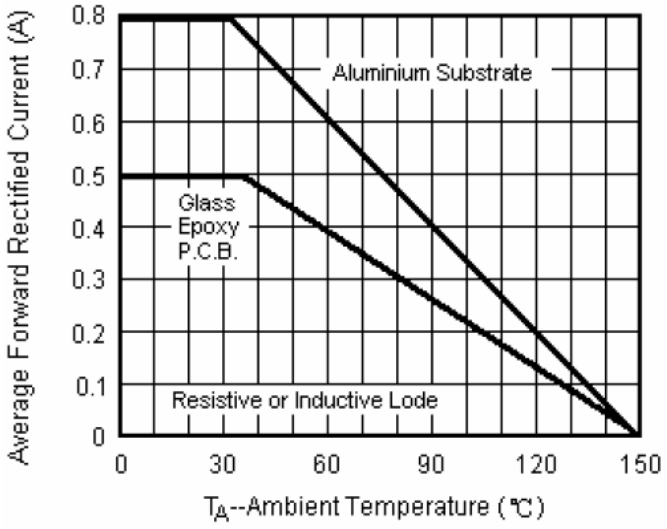


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current Per Leg

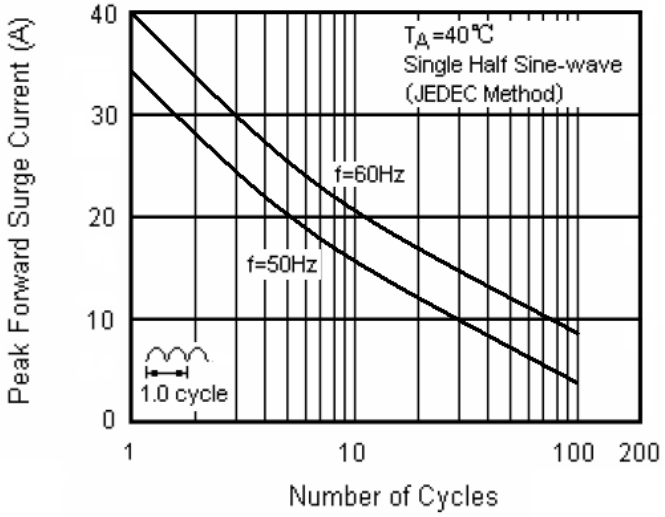


Fig.3 Typical Forward Voltage Characteristics Per Leg

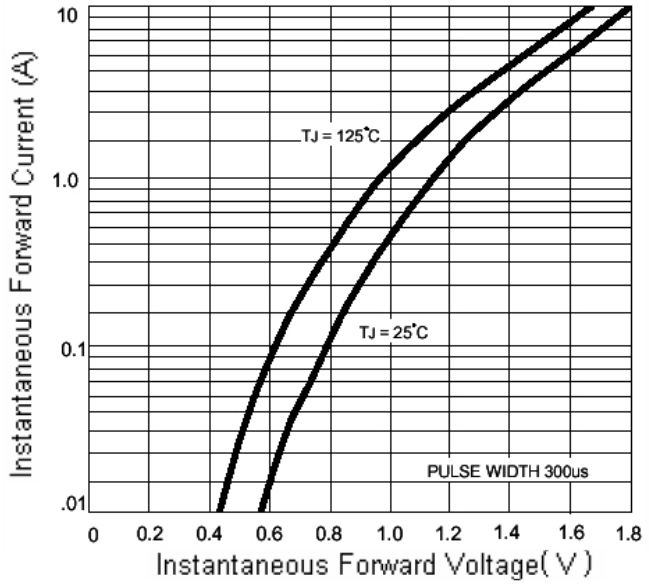


Fig.4 Typical Reverse Leakage Characteristics Per Leg

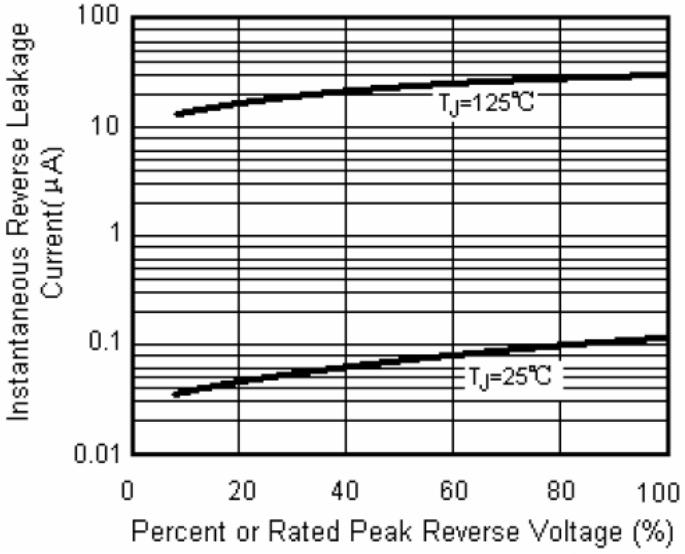
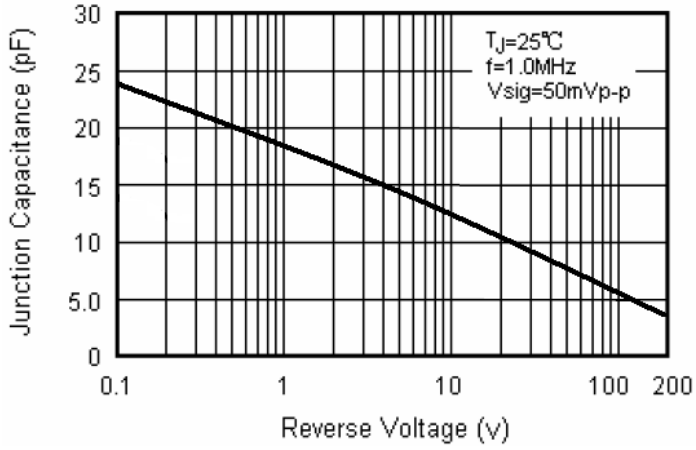


Fig.5 Typical Junction Capacitance Per Leg



1. **According to 1.4601.442-01 test circuit, ESD Test of LLD06-E at 600Vdc passed with the immunity capability of ±2KV**

2. **Description of test method & conditions**

Setup:

Test voltages for DUT: max specified DC blocking voltage.

ESD test level for Contact discharge:

10 Impulses at each test level and output polarity.

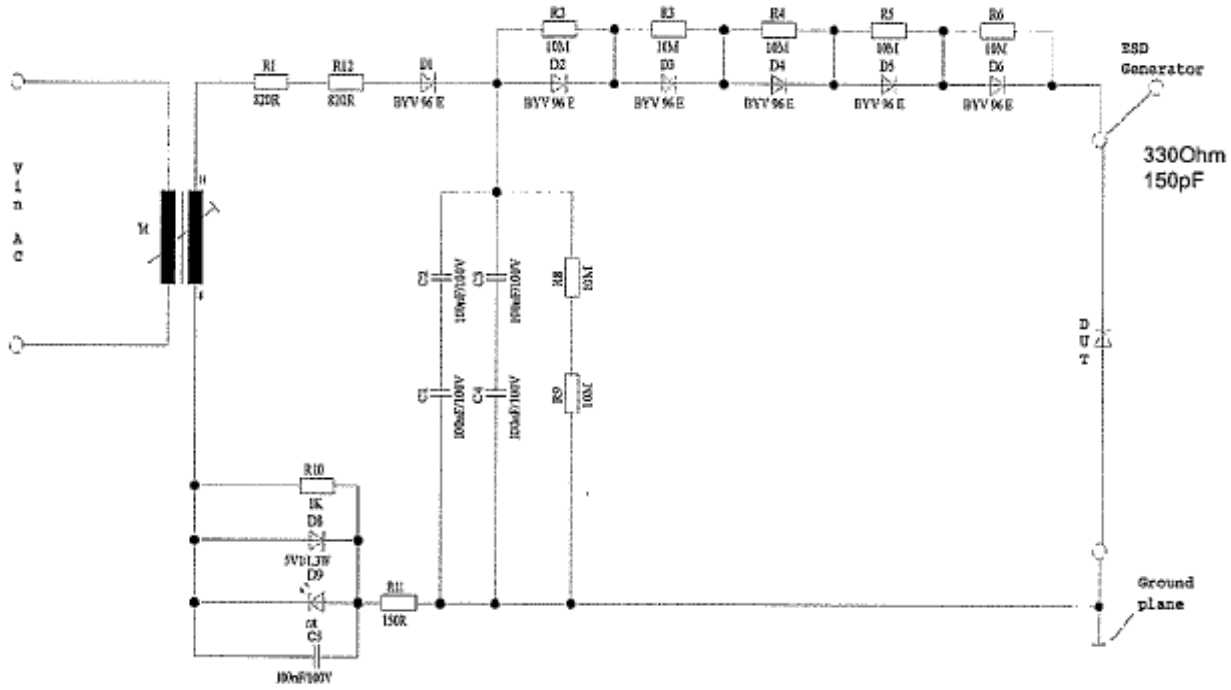
Test level: ±1, ±2KV

Test criteria:No faults are allowed.

Ambient temperature: 25℃ Relative humidity： 55%

Specification: ESD Generator according to IEC 61000-4-2

Test circuit:



(1.4601.442-01)