

ESD8LL5V0

ESD8LL5V0 Transient Voltage Suppressors ESD Protection Diode

General description

Silicon Diode in a SOD-882 Plastic Package.

Green Product

FEATURES

- Ultra low Capacitance <0.9 pF
- Low Clamping voltage.
- Small Body Outline Dimensions
- Low Leakage Current
- Response Time is Typically < 1ns
- ESD Rating of Class 3 (>16kV) per Human Body Model
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode
- Weight: approx. 0.001g



SOD882 Package



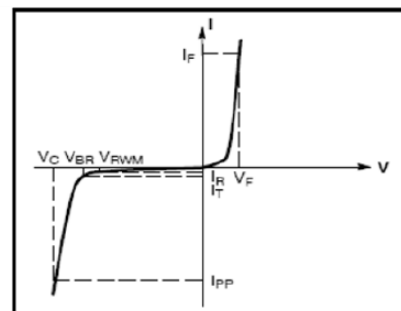
Absolute Maximum Ratings (T_A = 25°C unless otherwise noted)

Symbol	Parameter	Value	Units
PD	Total Power Dissipation on FR-5 Board	150	mW
T _L	Max Lead Solder Temperature range (10 Second Duration)	260	°C
T _{stg}	Storage Temperature Range	-55 to +150	°C
T _J	Junction Temperature	+150	°C
ESD	IEC61000-4-2 Air Discharge Contact Discharge	±15 ±8	KV
EFT	IEC61000-4-4	40	A
ESD	Per Human Body Model	16	KV

Device Marking:

Device Type	Marking	Shipping
ESD8LL5V0	L or U1	10,000/Reel

Symbol	Parameter
V _C	Clamping Voltage @ I _{PP}
I _{PP}	Peak Pulse Current
V _{BR}	Breakdown Voltage @ I _T
I _T	Test Current
I _R	Reverse Leakage Current @ V _{RWM}
V _{RWM}	Reverse Standoff Voltage
V _F	Forward Voltage @ I _F
I _F	Forward Current



V-I characteristics for a uni-directional TVS

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Device Type	V _{RWM}	I _R @ V _{RWM}	V _{BR} @ I _T		I _T	V _C @ I _{PP} *= 1A	V _C @ Max I _{PP} *	I _{PP} * (A)	C @ V _R = 0V, f = 1MHz
	(Volts)	(µA)	(Note 1) (Volts)			(mA)			
	Max	Max	Min	Max		Typ.	Max	Max	Typ.
ESD8LL5V0	5.0	1	5.4	---	1.0	8	20	4	0.65

* Surge current waveform per Figure 1.

Note 1: V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C.

SURGE CURRENT WAVEFORM:

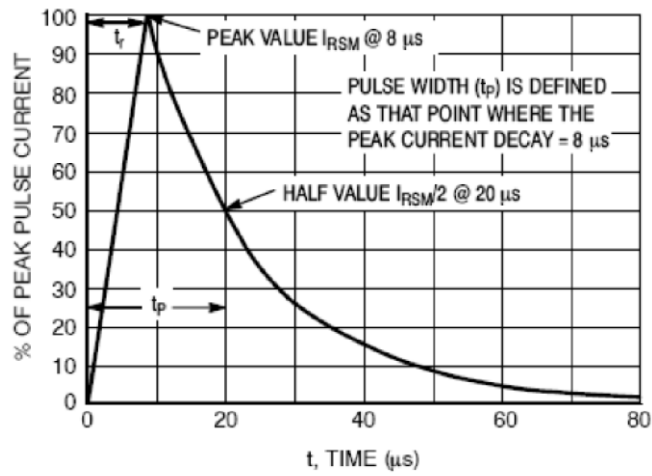
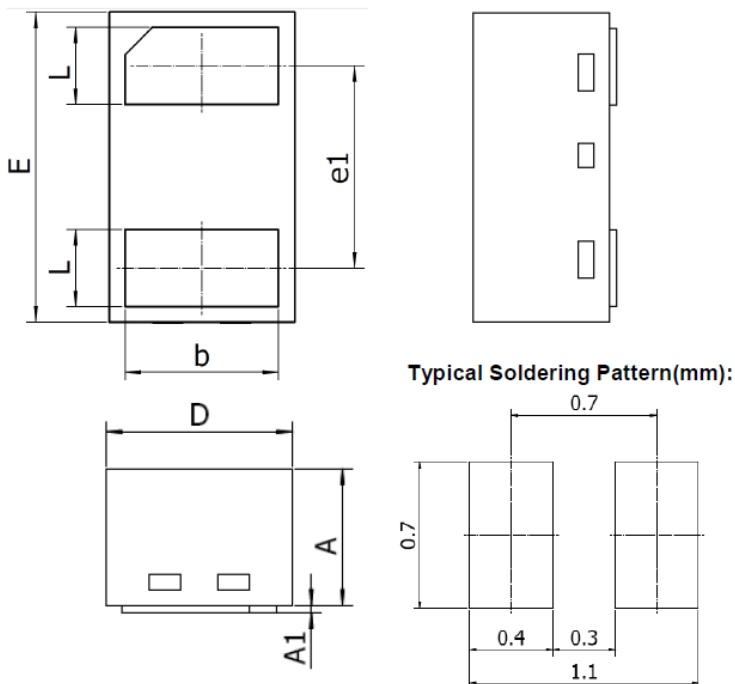


Figure 1. 8 x 20 µs Pulse Waveform

SOD882 Package Outline



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.46	0.50	0.018	0.020
A1	---	0.03	---	0.001
b	0.45	0.55	0.018	0.022
D	0.55	0.65	0.022	0.026
E	0.95	1.05	0.037	0.041
e1	Typ. 0.65		Typ. 0.026	
L	0.20	0.30	0.008	0.012

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