

# ESD8LM5V0C

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### Transient Voltage Suppressors ESD Protection Diode

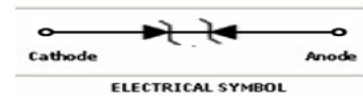
#### General description

Silicon Diode in a SOD-882 Plastic Package.

#### FEATURES

- Capacitance Typ. 3.5pF
- 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

#### Green Product



#### Absolute Maximum Ratings (T<sub>A</sub> = 25°C unless otherwise noted)

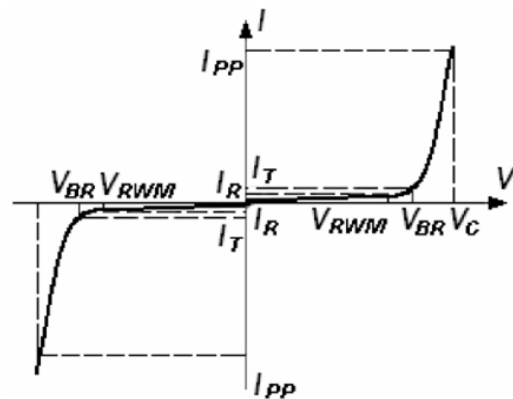
Symbol	Parameter	Value	Units
PD	Total Power Dissipation on FR-5 Board	150	mW
T <sub>L</sub>	Max Lead Solder Temperature range (10 Second Duration)	260	°C
T <sub>stg</sub>	Storage Temperature Range	-55 to +150	°C
T <sub>J</sub>	Junction Temperature	+125	°C
ESD	IEC61000-4-2 Air Discharge	± 15	KV
	Contact Discharge	± 12	
EFT	IEC61000-4-4	40	A
ESD	Per Human Body Model	16	KV

#### Device Marking:

Device Type	Marking	Shipping
ESD8LM5V0C	Q5 or 5CU	10,000/Reel

#### Electrical Parameter

Symbol	Parameter
I <sub>PP</sub>	Maximum Reverse Peak Pulse Current
V <sub>C</sub>	Clamping Voltage @ I <sub>PP</sub>
V <sub>RWM</sub>	Working Peak Reverse Voltage
I <sub>R</sub>	Maximum Reverse Leakage Current @ V <sub>RWM</sub>
I <sub>T</sub>	Test Current
V <sub>BR</sub>	Breakdown Voltage @ I <sub>T</sub>



#### Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

Device Type	V <sub>RWM</sub> (Volts)	I <sub>R</sub> @ V <sub>RWM</sub> (µA)	V <sub>BR</sub> @ I <sub>T</sub> (Note 1) (Volts)		I <sub>T</sub> (mA)	V <sub>C</sub> @ Max I <sub>PP</sub> (Volts)	I <sub>PP</sub> * (A)	C @ V <sub>R</sub> = 0V, f = 1MHz (pF)
	Max	Max	Min	Max		Max	Max	Typ.
ESD8LM5V0C	5.0	1	5.6	11.0	1.0	13	3.5	3.5

\* Surge current waveform per Figure 1.

Note 1: V<sub>BR</sub> is measured with a pulse test current I<sub>T</sub> at an ambient temperature of 25°C.

## SURGE CURRENT WAVEFORM:

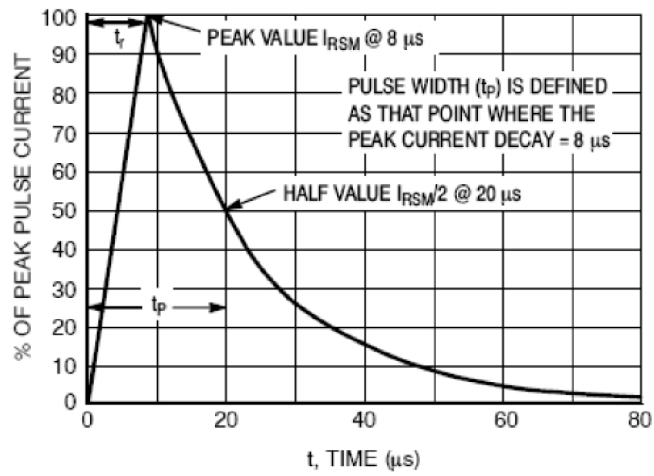
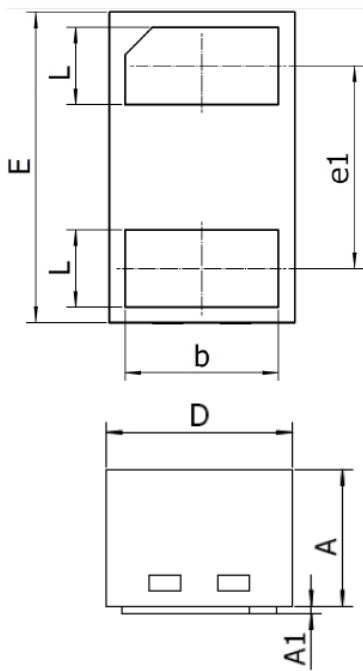
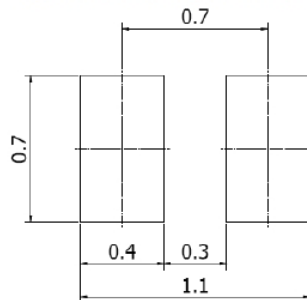


Figure 1. 8 x 20 µs Pulse Waveform

## SOD882 Package Outline



Typical Soldering Pattern(mm):



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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