



PROTECTION PRODUCTS

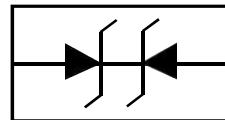
Feature:

- Bidirectional ESD protection of one line
- Max. peak pulse power: $PPP = 80\text{ W}$
- ESD protection $> 30\text{ kV}$
- IEC 61000-4-2, level 4 (ESD)
- Low clamping voltage: $V_{(CL)R} = 15\text{ V}$
- IEC 61000-4-5 (surge); $I_{PP} = 5\text{ A}$
- Ultra low leakage current: $I_{RM} = 0.01\mu\text{A}$
- Ultra small SMD plastic packages

Application:

- Cellular handsets and accessories
- Communication systems
- Portable electronics
- Audio and video equipment
- Computers and peripherals

Circuit Diagram & Pin Configuration:



DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
ESD8D5V0B1S080T	V Z	10000/Tape&Reel



Ordering Information per line@25°C(unless otherwise specified)

Parameter	Symbol	Rating	Unit
Peak pulse power (tp = 8/20μs)	Ppk	80	W
ESD Protection – Contact Discharge, per IEC 61000-4-2	VESD_CONTACT	±30	KV
ESD Protection – Air Discharge, per IEC 61000-4-2	VESD_AIR	±30	
Junction temperature	TJ	125	°C
Operating temperature	TOP	-40~85	°C
Lead temperature	TL	260	°C
Storage temperature	TSTG	-55~150	°C

Electrical Characteristics per line@25°C(unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Working Voltage	VRWM	—	—	5.0	V	
Reverse Breakdown Voltage	VBR	5.8	6.8	7.8	V	IR = 1mA,
Reverse Leakage Current	IR	—	0.01	0.5	μA	VR = 5.0V,
Clamping Voltage	VC	—	7.0	12.0	V	IPP = 1.0A, 8/20μs,
Clamping Voltage	VC	—	10.5	15.0	V	IPP = 5.0A, 8/20μs,
Junction Capacitance	CJ	—	9.0	13.0	pF	VR = 0V, f = 1MHz,

Note: Electrical parameters are only for die, performance may alter after assembly.



Typical Characteristics

Fig 1. 8/20 ms pulse waveform according to IEC 61000-4-5

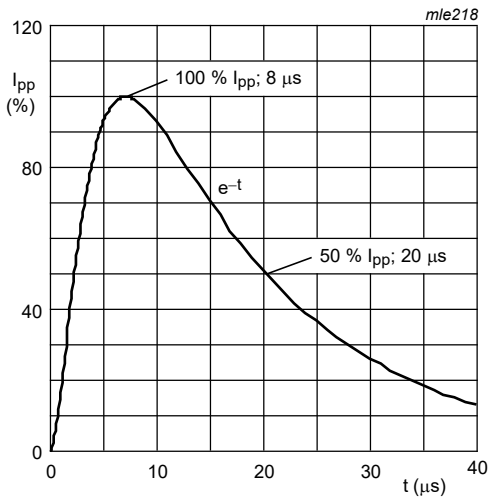
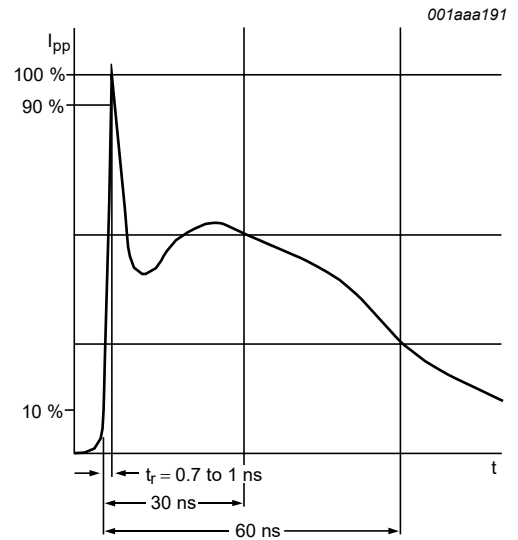
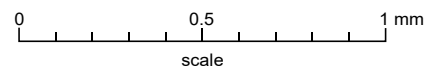
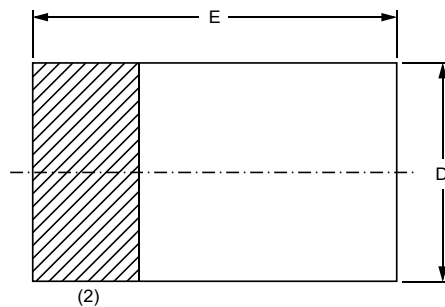
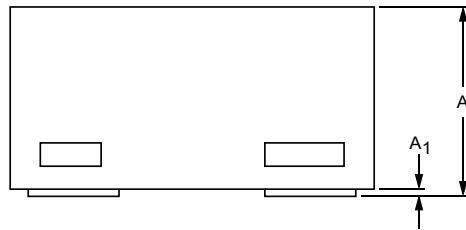
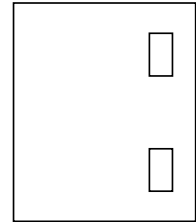
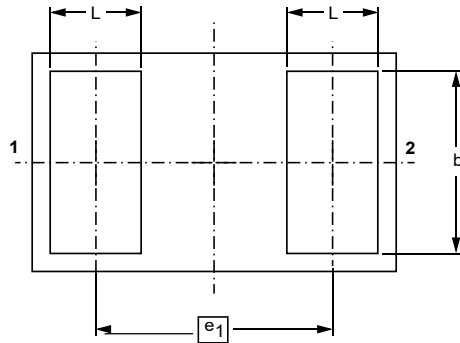


Fig 2. ElectroStatic Discharge (ESD) pulse waveform according to IEC 61000-4-2





Dimension (SOD-882)



DIMENSIONS (mm are the original dimensions)

UNIT	A ⁽¹⁾	A ₁ max.	b	D	E	e ₁	L
mm	0.50 0.46	0.03	0.55 0.47	0.62 0.55	1.02 0.95	0.65	0.30 0.22

Notes

1. Including plating thickness
2. The marking bar indicates the cathode

OUTLINE VERSION	REFERENCES			EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	JEITA		
SOD882					



NOTICE

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), HSMelect Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

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