

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

MSESD36VD5B

Product specification

General description

The MSESD36VD5B is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time , make these parts ideal for ESD protection on designs where board space is at a premium

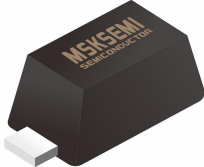
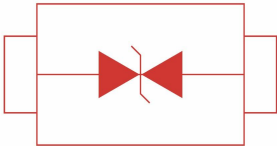

Features and benefits

- Reverse stand-off voltage: 36V Max
- Low leakage current: nA Level
- Low Clamping Voltage
- Response time is typically < 1 ns
- IEC61000-4-2 Level 4 ESD Protection

Application information

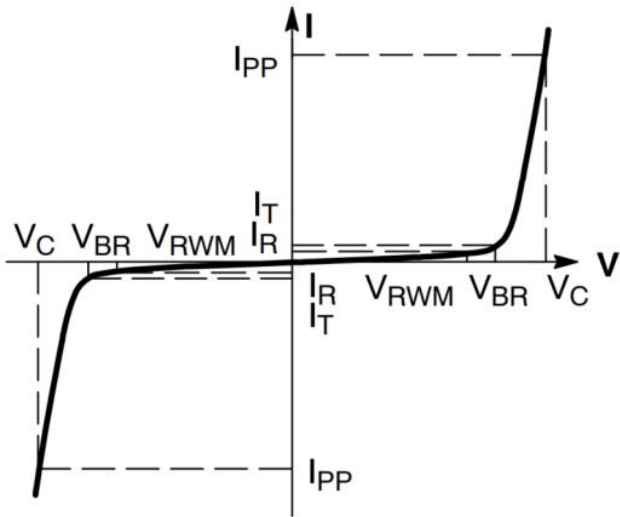
- Cell phones
- Audio equipment
- Portable devices
- Digital cameras
- Power supplies

Reference News

SOD-523	Graphic symbol	Marking
		

Portion Electronics Parameter

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	VBR Breakdown Voltage @ I_T



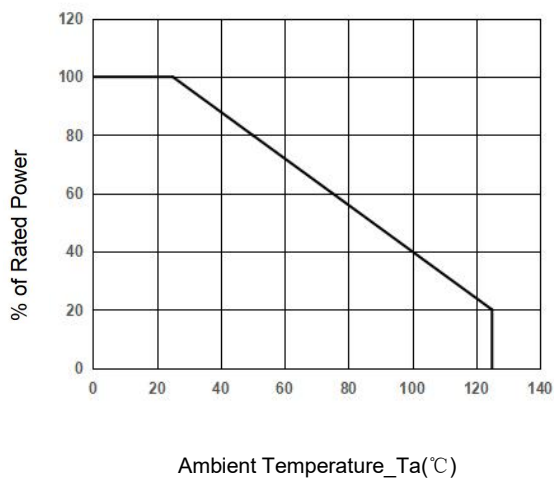
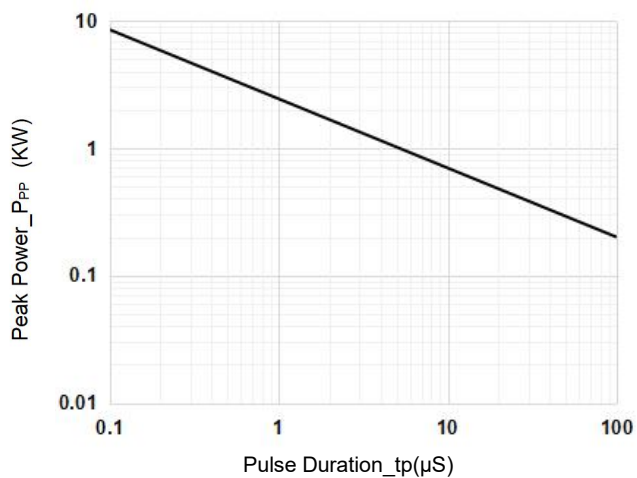
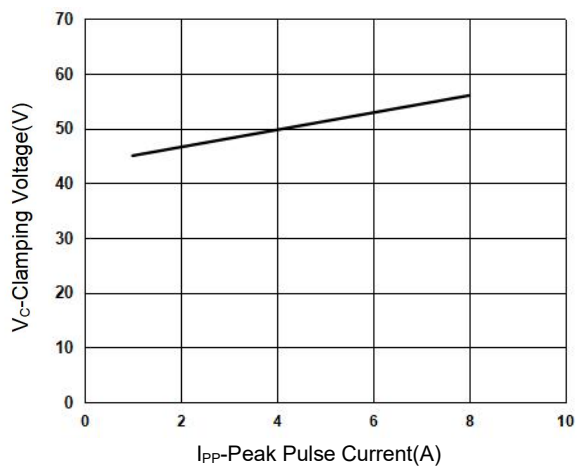
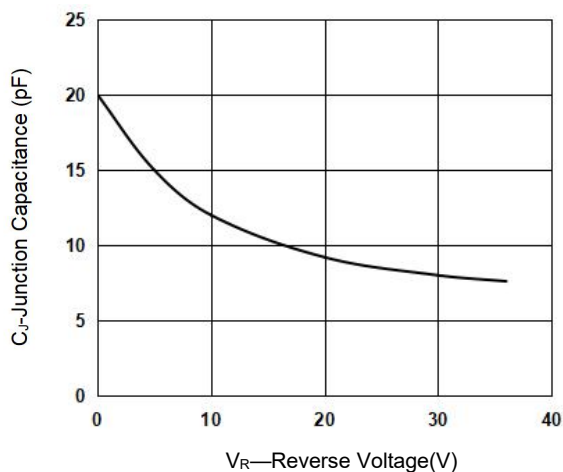
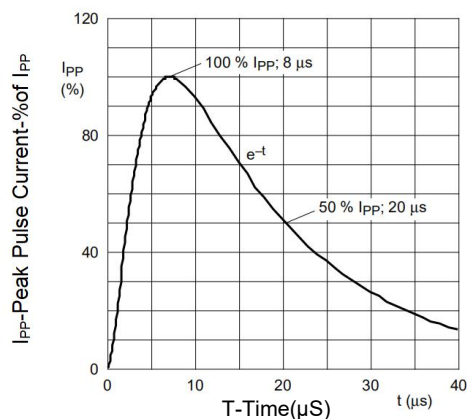
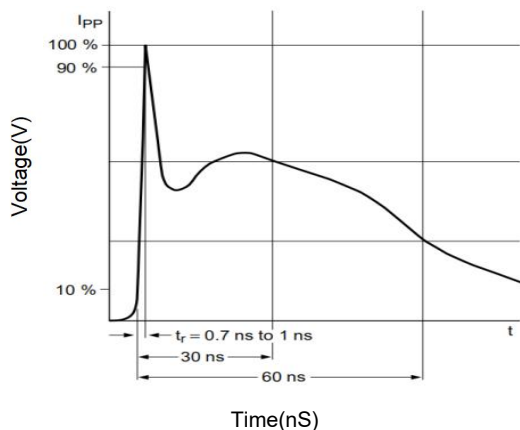
Maximum Ratings ($T_{OP} = 25^{\circ}\text{C}$, unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	P_{PPM}	500	W
Peak Pulse Current ($t_p = 8/20\mu\text{s}$)	I_{PPM}	8	A
Maximum lead temperature for soldering during 10s	T_L	260	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^{\circ}\text{C}$
Operating Temperature Range	T_{OP}	-40 to +125	$^{\circ}\text{C}$
Maximum junction temperature	T_j	150	$^{\circ}\text{C}$
ESD voltage IEC 61000-4-2 (air discharge)	V_{ESD}	30	kV
ESD voltage IEC 61000-4-2 (contact discharge)	V_{ESD}	30	kV

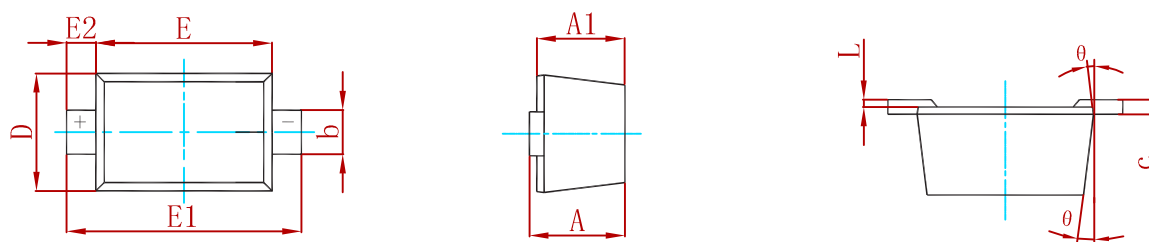
Electrical Characteristics ($T_{OP} = 25^{\circ}\text{C}$, unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Reverse Working Voltage	V_{RWM}	--	--	36.0	V	
Breakdown Voltage	V_{BR}	38.0	--	44.0	V	$I_r = 1\text{mA}$
Leakage Current I_{Leak}	I_r	--	--	100	nA	$V_{RWM} = 36\text{V}$
Clamping Voltage	V_C	--	45	50	V	$I_{PP} = 1\text{A}, T_p = 8/20\mu\text{s}$
Clamping Voltage	V_C	--	56	62	V	$I_{PP} = 8\text{A}, T_p = 8/20\mu\text{s}$
Junction Capacitance	C_j	--	20	30	pF	$V_R = 0\text{V}, f = 1\text{MHz}$

Typical Performance Characteristics (T_A=25°C unless otherwise Specified)

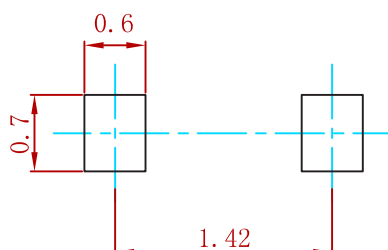


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
MSESD36VD5BC	SOD-523	3000

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