



Features

- Small Body Outline Dimensions:
0.063" x 0.032" (1.6x0.8 mm)
- Low Body Height: 0.024" (0.6 mm) nom
- Bidirectional ESD protection of one I/O line
- Low clamping voltage
- Working voltage: 5V
- Low leakage current



IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 25\text{kV}$ (air), $\pm 20\text{kV}$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)

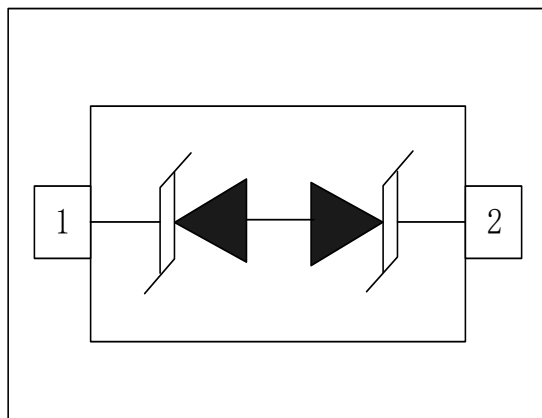
Mechanical Characteristics

- JEDEC SOD-523 package
- Molding compound flammability rating:
UL 94V-0
- Marking : Marking Code
- Packaging : Tape and Reel per EIA 481
- RoHS Compliant

Applications

- Cellular Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Portable Instrumentation
- Digital Cameras
- MP3 players

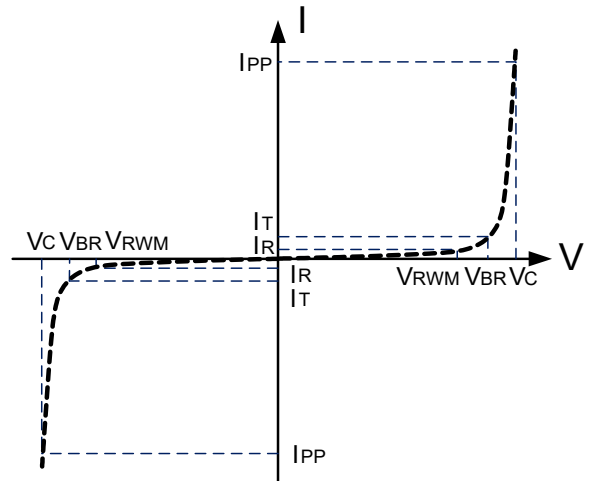
Schematic & PIN Configuration



Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	50	Watts
Electrostatic discharge Voltage (See Note1 ,2)	V_{ESD}	20KV (contact)	volts
		25KV (air)	
Operating Temperature	T_J	-55 to + 150	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Parameters (T=25°C)

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



Electrical Characteristics

DW05D5LV-B-E						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	5.8			V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25C$			0.5	μA
Peak Pulse Current	I_{PP}	$t_p = 8/20\mu s$			4	A
Clamping Voltage	V_C	$I_{PP}=4A, t_p = 8/20\mu s$		9	11	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		5.5	8	pF

Note1: ESD Pulse Waveform according to IEC 61000-4-2. see Table1 and Figure4.

Note2: ESD tests Setup see Figure 5.



Typical Characteristics

Figure 1: Power Derating Curve

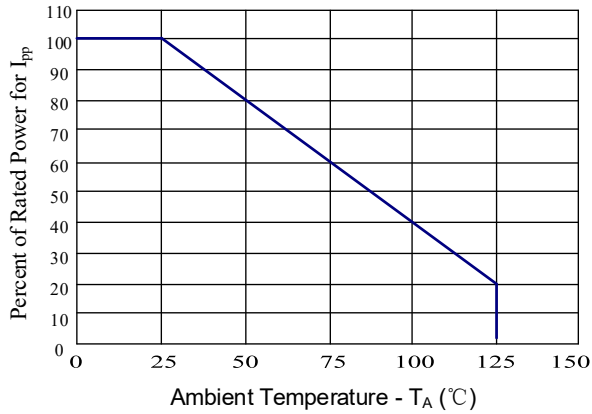


Figure 2: Insertion Loss

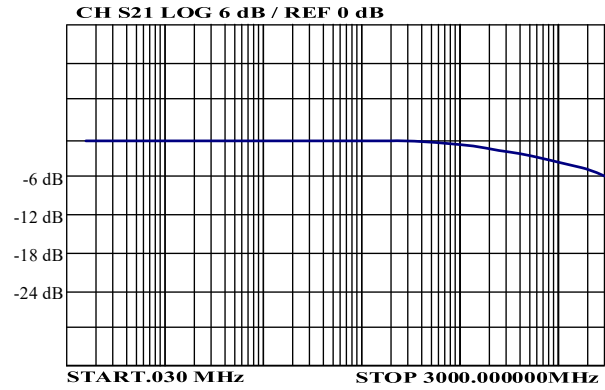


Figure 3: Normalized Junction Capacitance vs. Reverse Voltage

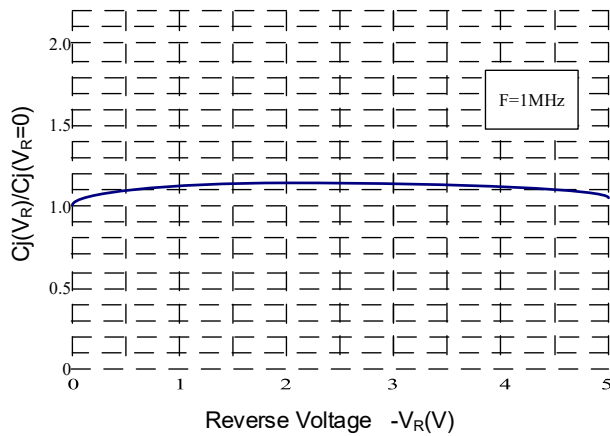


Table 1. IEC 61000-4-2 Discharge Parameters

Level	First Peak Current (A)	Peak Current at 30 ns (A)	Peak Current at 60 ns (A)	Test Voltage (Contact Discharge) (kV)	Test Voltage (Air Discharge) (kV)
1	7.5	4	2	2	2
2	15	8	4	4	4
3	22.5	12	6	6	8
4	30	16	8	8	15

Figure 4. IEC 61000-4-2 Waveform

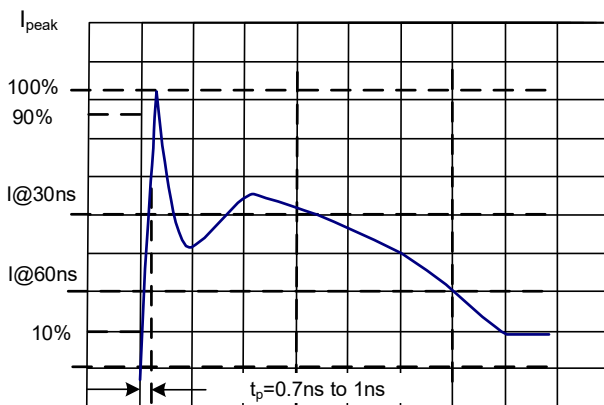
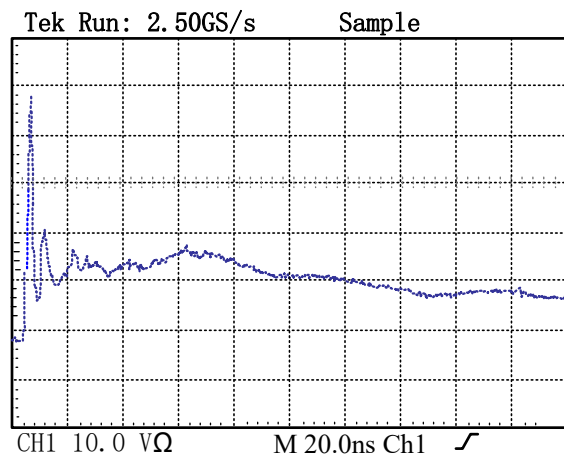
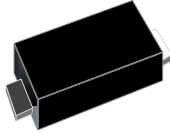
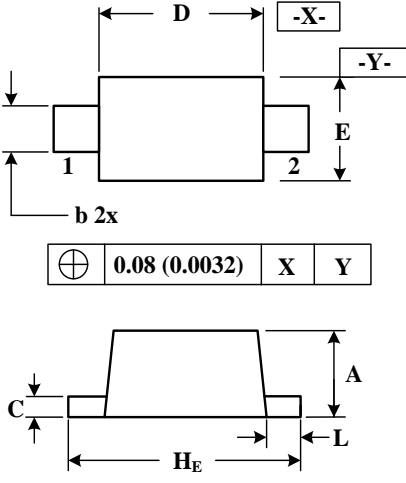
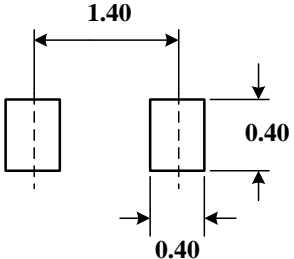


Figure 5: ESD Clamping (8kV Contact per IEC 61000-4-2)



Outline Drawing – SOD-523

PACKAGE OUTLINE		 SOD-523			
		DIMENSIONS			
SYMBOL	MILLIMETER		INCHES		
	MIN	MAX	MIN	MAX	
A	0.50	0.70	0.020	0.028	
b	0.25	0.35	0.010	0.014	
C	0.07	0.20	0.0028	0.0079	
D	1.10	1.30	0.043	0.051	
E	0.70	0.90	0.028	0.035	
H _E	1.50	1.70	0.059	0.067	
L	0.15	0.25	0.006	0.010	
		Notes 1. Controlling Dimensions in Millimeters. 2. Dimensions are exclusive of mold flash and metal burrs.			
DIMENSIONS: MILLIMETERS					

Marking Codes

Part Number	DW05D5LV-B-E
Marking Code	5LV

Package Information

Qty: 5k/Reel