



### Features

- Small Body Outline Dimensions:  
0.059" x 0.026" (1.5 mm x 0.65 mm)Max
- Low Body Height: 0.026" (0.65 mm) Max
- Protects one line
- Working Voltage: 3.3 V
- Low Leakage Current
- Response Time is Typically < 1 ns



### IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD)  $\pm 15\text{kV}$  (air),  $\pm 8\text{kV}$  (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)

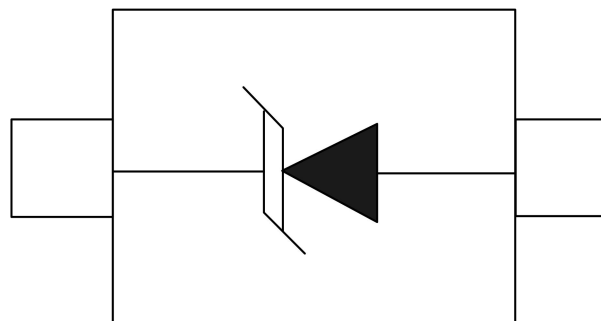
### Mechanical Characteristics

- 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

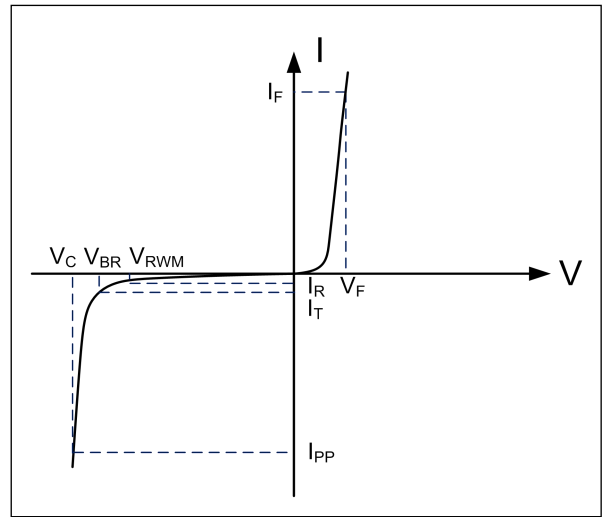


SOD-523 (Top View)

Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{PP}$	200	Watts
Peak Forward Voltage ( $I_F = 1A, t_p = 8/20\mu s$ )	$V_{FP}$	1.5	V
Operating Temperature	$T_J$	-55 to + 125	°C
Storage Temperature	$T_{STG}$	-55 to +150	°C

**Electrical Parameters (T=25°C)**

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 @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$



**Electrical Characteristics**

DW03D5-E						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	$V_{RWM}$				3.3	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	5.0			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 3.3V, T = 25^\circ C$			1	$\mu A$
Peak Pulse Current	$I_{PP}$	$t_p = 8/20\mu s$			11.0	A
Clamping Voltage	$V_C$	$I_{PP} = 5A, t_p = 8/20\mu s$		8.3		V
Clamping Voltage	$V_C$	$I_{PP} = 11.0A, t_p = 8/20\mu s$		14.1		V
Junction Capacitance	$C_j$	$V_R = 0V, f = 1MHz$		100		pF

### Typical Characteristics

Figure 1: Peak Pulse Power Vs Pulse Time

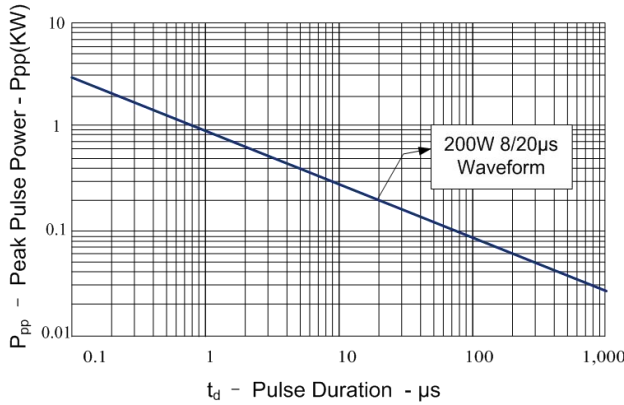


Figure 2: Power Derating Curve

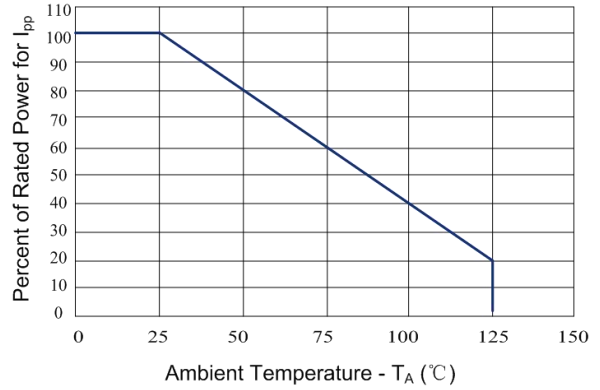


Figure 3: Clamping Voltage vs. Peak Pulse Current

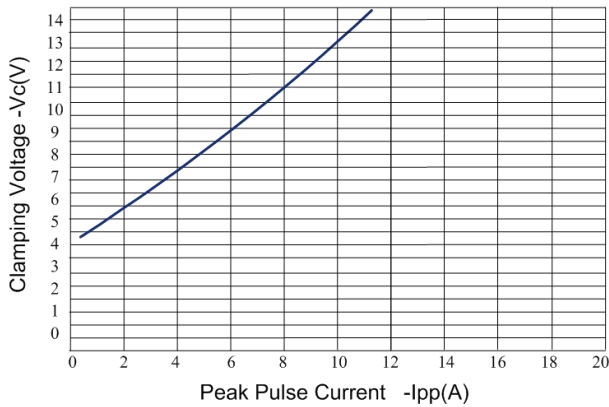


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

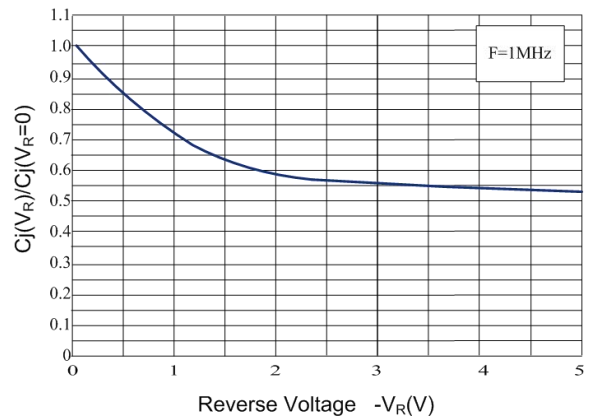


Figure 5: Pulse Waveform

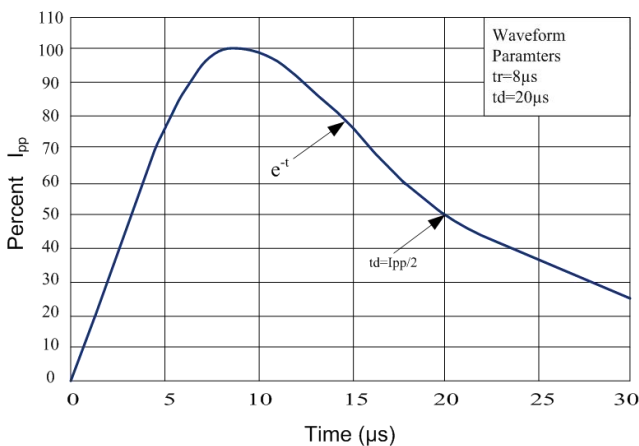
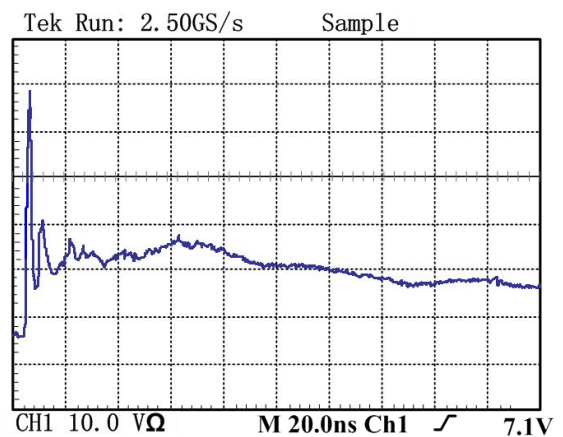

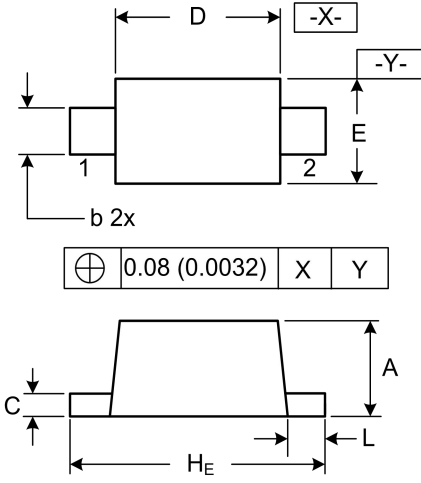
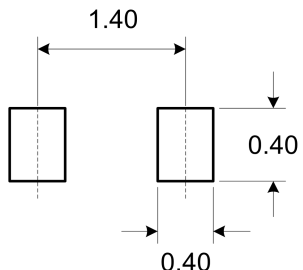


Figure 6: ESD Clamping( 8kV Contact per IEC 61000-4-2)



Outline Drawing – SOD-523

PACKAGE OUTLINE		 <b>SOD-523</b>			
		<b>DIMENSIONS</b>			
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 <sub>E</sub>	1.50	1.70	0.059	0.067	
L	0.15	0.25	0.006	0.010	
		<b>Notes</b> 1. Controlling Dimensions in Millimeters. 2. Dimensions are exclusive of mold flash and metal burrs.			
DIMENSIONS: MILLIMETERS					

Marking Codes

Part Number	DW03D5-E
Marking Code	ZE

Package Information

Qty: 3k/Reel