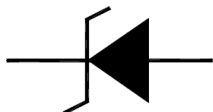
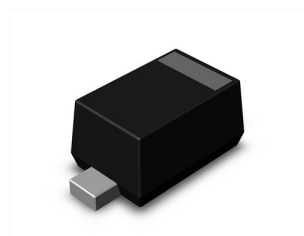


## TRANSIENT VOLTAGE SUPPRESSORS



**ESD5Z\_  
SOD – 523  
Plastic Package**

### FEATURES

- Excellent clamping capability
- Low Leakage
- Fast response time

### ABSOLUTE MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ )

PARAMETER		SYMBOL	VALUE	UNIT
IEC61000-4-2 (ESD)	Air	$V_{\text{ESD}}$	$\pm 30$	KV
	Contact		$\pm 30$	
ESD Voltage	Per Human Body Model	$V_{\text{ESD}}$	16	KV
	Per Machine Model		400	V
Power Dissipation on FR-5 Board		$P_{\text{tot}}$	200	mW
Junction Temperature		$T_J$	150	$^\circ\text{C}$
Storage Temperature		$T_{\text{stg}}$	-55 to 150	$^\circ\text{C}$

Type	Marking Code	Reverse Stand-off Voltage	Reverse Current	Breakdown Voltage		Clamping Voltage			Reverse Peak Pulse Current	Peak Power Dissipation	Capacitance
		$V_{\text{RWM}}$	$I_{\text{R}}$ at $V_{\text{RWM}}$	$V_{\text{BR}}$	at $I_{\text{T}}$	$V_{\text{C}}$	at $I_{\text{PP}}$	$V_{\text{C}}$ at Max. $I_{\text{PP}}$	$I_{\text{PP}}$	$P_{\text{pk}}$	$C_j$
		Max. (V)	Max. ( $\mu\text{A}$ )	Min. (V)	(mA)	Typ. (V)	(A)	Max. (V)	Max. (A)	Max. (W)	Typ. (pF)
ESD5Z2V5	02	2.5	6	4	1	6.5	5	10.9	11	120	145
ESD5Z3V3	ZE	3.3	0.05	5	1	8.4	5	14.1	11.2	158	105
ESD5Z5V0	05	5	0.05	6.2	1	11.6	5	18.6	9.4	174	80
ESD5Z6V0	06	6	0.01	6.8	1	12.4	5	20.5	8.8	181	70
ESD5Z7V0	07	7	0.01	7.5	1	13.5	5	22.7	8.8	200	65
ESD5Z9V0	09	8.3	0.5	9	1	11.5	5	15	13.3	200	92
ESD5Z12	12	12	0.01	14.1	1	17	5	25	9.6	240	55

## CHARACTERISTIC CURVES

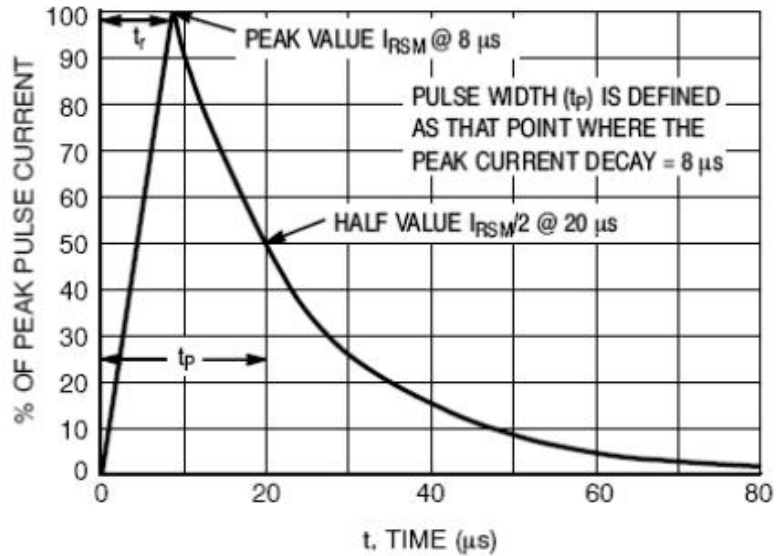
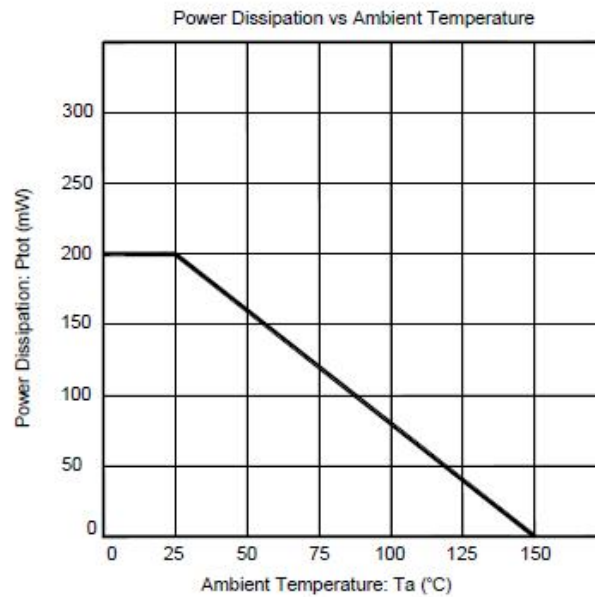
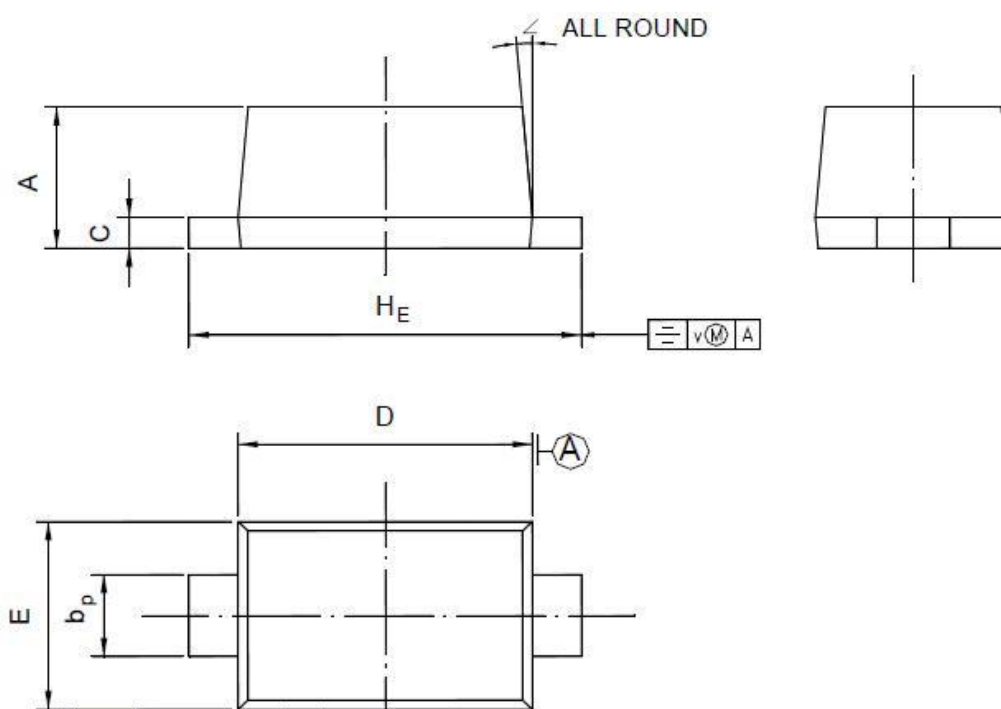


Figure 1. 8 x 20  $\mu\text{s}$  Pulse Waveform



### SOD-523 PACKAGE OUTLINE AND DIMENSIONS



UNIT	A	b <sub>p</sub>	C	D	E	H <sub>E</sub>	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°



Continental Device India Pvt. Limited  
An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company



## Customer Notes:

### Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

### DISCLAIMER

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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