

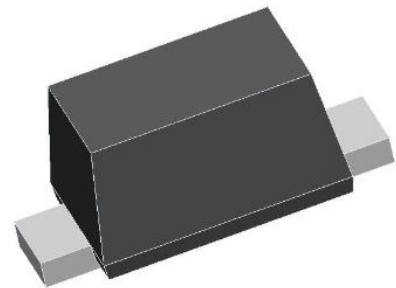
**Features**


- IEC61000-4-2(ESD)  $\pm 15\text{KV}$ (air),  $\pm 8\text{KV}$ (contact)
- IEC61000-4-5(Lightning) 10A(8/20us)
- 200 Watts peak pulse power( $t_p=8/20\text{us}$ )
- Low operating voltage and low clamping
- Moisture sensitivity level: level 1
- Small package: SOD523

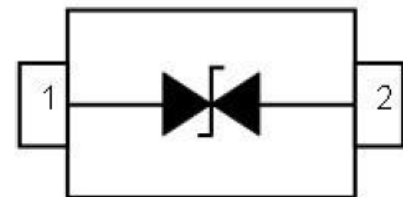
**Exterior**

**SOD523**
**Application information**

- High Speed Line: USB 1.0/2.0,VGA,DVI,SDI
- Serial and Parallel Ports
- Cellular handsets and accessories

**Package (Top View)**

**Agency Approvals**

ICoN	Description
RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC 61249-2-21:2003
	Mean lead free

**Schematic Symbol**

**Part Number and Electrical Parameter**

Part Number	$I_{\text{DRM}}@V_{\text{DRM}}$		$V_{\text{BR}}@I_{\text{BR}}$		$V_{\text{C}}@I_{\text{PP}}^{\text{①}}$		$V_{\text{C}}@I_{\text{PP}}^{\text{①}}$		$C_0^{\text{②}}$
	$\mu\text{A}$	V	V	mA	V	A	V	A	pF
	MAX		MIN		MAX		MAX		MAX
<b>BV-D505ZC</b>	1.0	5.0	5.6	1.0	11.6	5.0	18.6	10	15

Absolute maximum rating measured at  $T=25^{\circ}\text{C}$  RH=45%-75% (unless otherwise noted).

① Surge Waveform: 8/20us;

② Off-state capacitance is measured in  $V_{\text{BR}}=0\text{V}$ ,  $f=1\text{MHz}$ ;

**Transient Voltage Suppressor**

Version: A0 2016-03-14

**Part Number System**
**Mark**

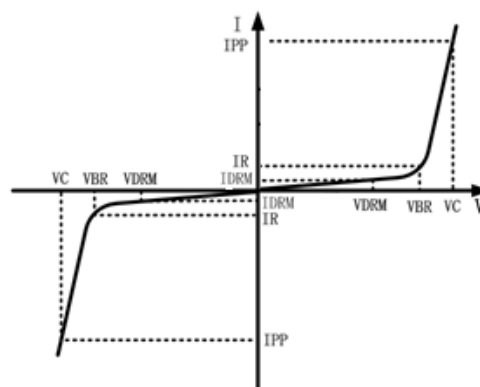
BV            D505ZC  
 (1)            (2)  
 (1) Bencent    TVS  
 (2) Series: D505ZC etc.



5C: Marking

**V-I Curve**

Parameters	Definition
$V_C$	Clamping voltage
$I_{PP}$	Peak pulse current
$V_{DRM}$	Stand-off Voltage
$V_{BR}$	Breakdown Voltage
$I_{DRM}$	Reverse Leakage Current
$I_R$	Test current
$P_{PP}$	Peak Pulse Power Dissipation


**Thermal Considerations**

Symbol	Parameter	Value	Unit
$T_J$	Operating Junction Temperature Range	-55 to +150	°C
$T_S$	Storage Temperature Range	-55 to +150	°C

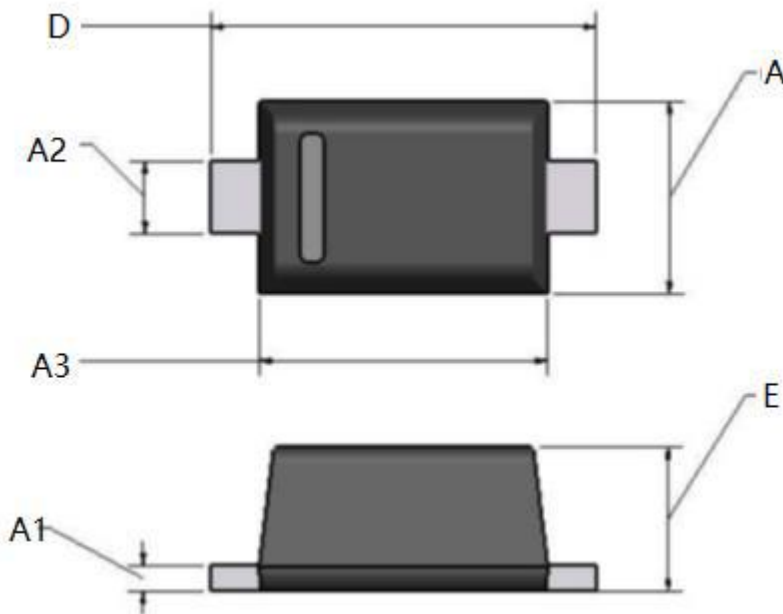
**Environmental Characteristics**

Testing Items	Technical Standards
High Temperature Reverse Bias Test	Temperature: $150 \pm 3^\circ\text{C}$ , Bias = $80\% V_{DRM}$ Time: 168H
High Temperature Life Test	Temperature: $150^\circ\text{C}$ Time: 168H
High-low Temperature Cycle Test	Temperature: From $-40^\circ\text{C}$ to $125^\circ\text{C}$ Dwell time: 30min, 100 cycles
High Temperature & High Humidity Test	Temperature: $85^\circ\text{C}$ Humidity: 85% Test time: 168H
Pressure Cooker Test	Temperature: $121^\circ\text{C}$ , 2atm. Humidity: 100% Test time: 24H
Resistance of Soldering Heat	Temperature: $260 \pm 5^\circ\text{C}$ Time of dip soldering: 10s, 3 times

Note: The above testing items can be specified by customers by contacting Bencent service

**Transient Voltage Suppressor**

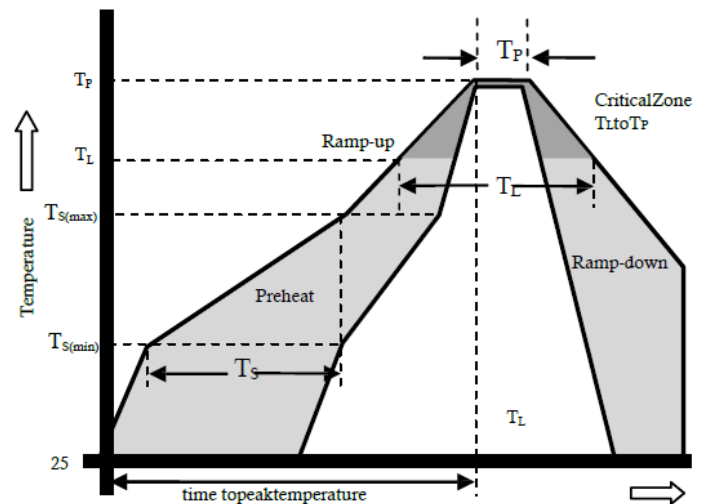
Version: A0 2016-03-14

**Product Dimensions**
**SOD523**


Symbol	Dimensions In Millimeters		
	Min.	Typ.	Max.
A	0.700	--	0.900
A1	--	--	0.200
A2	0.250	--	0.350
A3	1.100	--	1.300
D	1.500	--	1.700
E	0.500	--	0.700

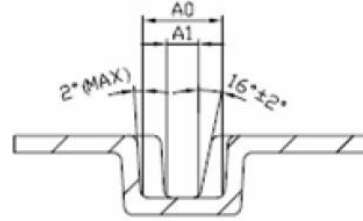
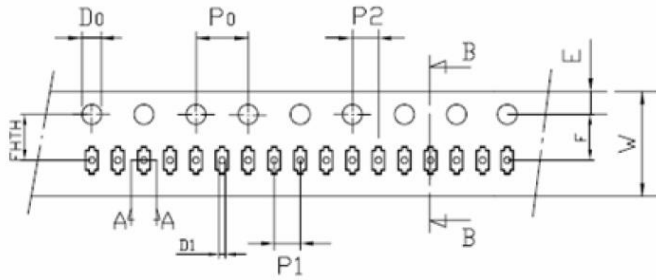
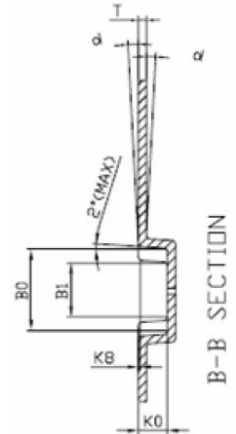
**Reflow Profile**

Reflow Condition		Pb-Free Assembly
Pre Heat	Temperature Min	150°C
	Temperature Max	200°C
	Time (Min to Max)	20 – 80 secs
Average ramp up rate (Liquid)		3°C/s Max.
Temperature (T <sub>L</sub> ) to peal		
T <sub>S</sub> (Max) to T <sub>I</sub> -Ramp-up Rate		3°C/s Max.
Reflow	-Temperature (T <sub>I</sub> )(Liquid)	217°C
	-Temperature (T <sub>L</sub> )	60 –150 secs
Peak Temperature (T <sub>P</sub> )		(260+0/-5)°C
Time within 5°C of actual Peak		30 secs
Temperature (T <sub>P</sub> )		
Ramp-down Rate		6°C/s Max.
Time 25°C to peak Temperature(T <sub>P</sub> )		8 min Max
Do not exceed		260°C

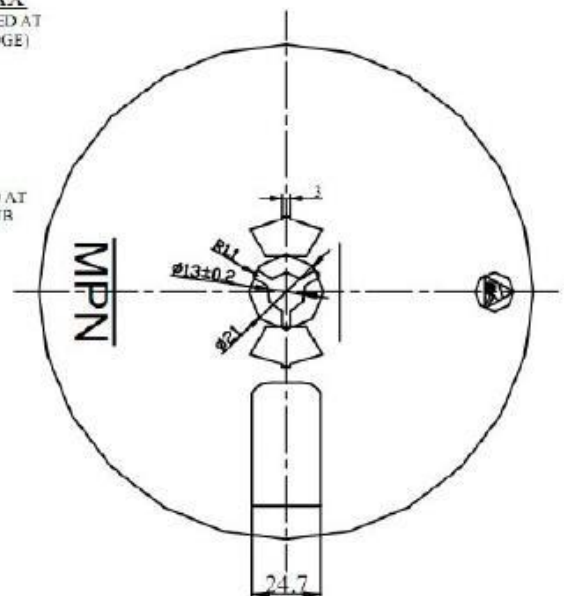
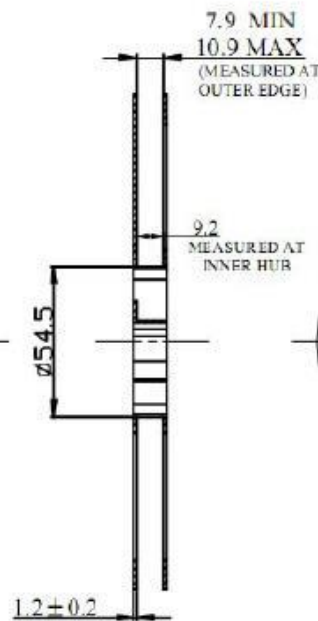
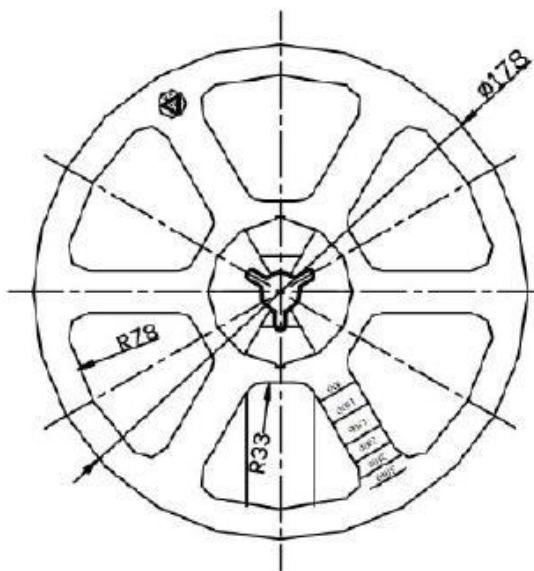


**Transient Voltage Suppressor**

Version: A0 2016-03-14

**Package Reel Information**

 A-A SECTION  
unit:mm


symbol	A0	B0	K0	P0	P1	P2	A1	T
Spec	0.90±0.05	1.95±0.05	0.73±0.05	4.0±0.10	2.0±0.05	2.0±0.05	0.39±0.05	0.20±0.02
symbol	E	F	D0	D1	B2	W	10P0	K8
Spec	1.75±0.10	3.50±0.05	1.50 <sup>+0.10</sup> <sub>0</sub>	0.50±0.05	1.40±0.05	8.0 <sup>+0.3</sup> <sub>-0.1</sub>	40.0±0.10	0.15MAX
symbol	FHTH							
Spec	3.50±0.05							



Outline	Reel (pcs)	Per Carton (pcs)	Reel Diameters (mm)	Carton Size (mm)		
				L	W	H
Taping	3,000	90,000	178	390	370	220

单击下面可查看定价，库存，交付和生命周期等信息

[>>Bencent \(槟城\)](#)