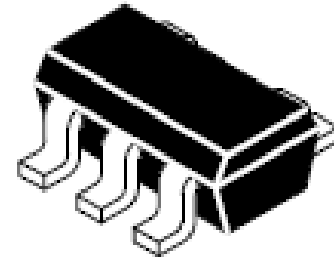
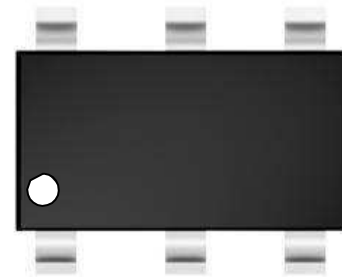



**Features**

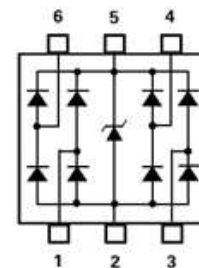
- Small SOT23-6L Packaging
- Low leakage current of 0.5uA(MAX) at 5V
- IEC61000-4-2(ESD) $\pm 15KV$ (air),  $\pm 8KV$ (contact)
- Moisture sensitivity level: level 1

**Exterior**

**SOT23-6L**
**Application information**

- USB 2.0
- Video Graphics Cards
- DVI
- IEEE 1394
- Monitors and Flat Panel Displays
- 10/100 Ethernet
- Notebooks

**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	$I_{DRM}@V_{DRM}$		$V_{BR}@I_{BR}$		$V_C@I_{PP}^{\textcircled{1}}$		$C_o^{\textcircled{2}}$	$C_o^{\textcircled{3}}$
	uA	V	V	mA	V	A	pF	pF
	MAX		MIN		TYE		MAX	MAX
<b>BV-SRV05-4A</b>	0.5	5.0	6.0	1.0	17.0	12.0	3.0	1.5

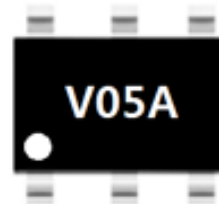
Absolute maximum rating measured at  $T=25^{\circ}C$  RH=45%-75% (unless otherwise noted).

- ① Surge Waveform: 8/20us, Pin1,3,4,6 to Pin2;
- ② Off-state capacitance is measured in  $V_{BR}=0V$ ,  $f=1MHz$ , Pin1,3,4,6 to Pin2;
- ③ Off-state capacitance is measured in  $V_{BR}=0V$ ,  $f=1MHz$ , any I/O-I/O;

Specifications are subject to change without notice.

**Transient Voltage Suppressor**

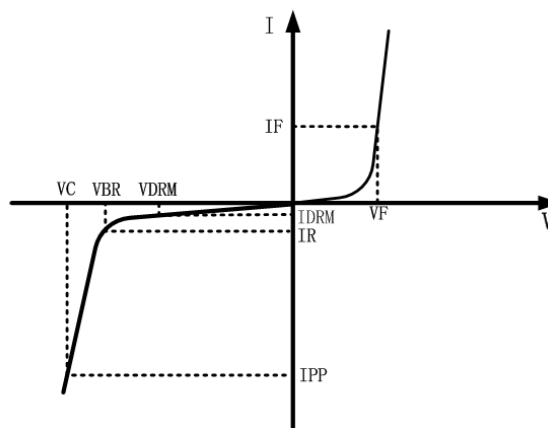
Version: A0 2016-03-14

**Part Number System**
**BV SRV05-4A**
**(1) (2)**
**(1) Bencent TVS**
**(2) Series: SRV05-4A etc.**
**Mark**


V05A: 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	$^{\circ}C$
$T_S$	Storage Temperature Range	-55 to +150	$^{\circ}C$

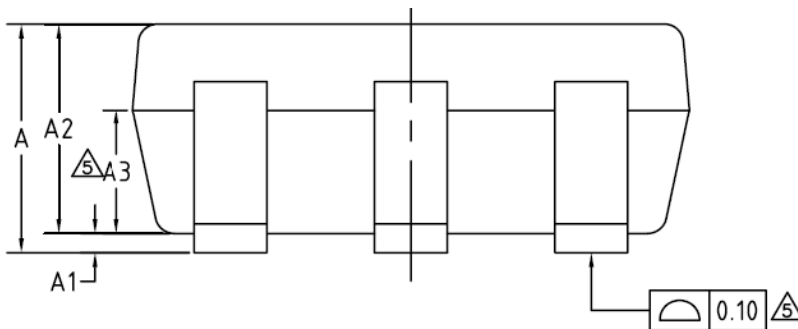
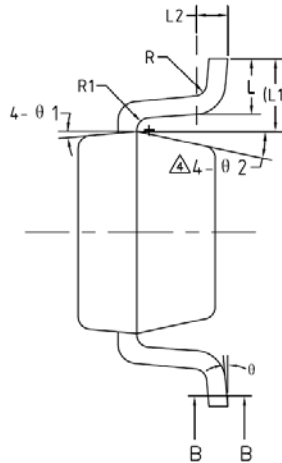
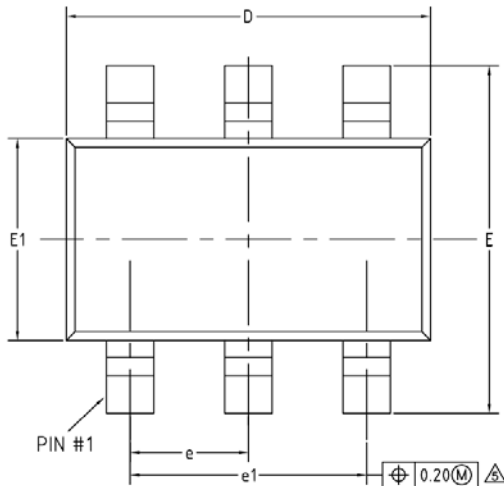
**Environmental Characteristics**

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

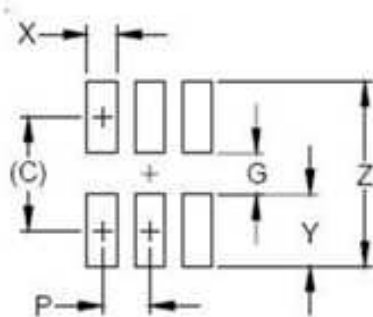
Note: The above testing items can be specified by customers by contacting Bencent service

**Transient Voltage Suppressor**

Version: A0 2016-03-14

**Product Dimensions**
**SOT23-6L**


Symbol	Dimensions In Millimeters		
	Min.	Typ.	Max.
A	--	--	1.250
A1	0.000	--	0.150
A2	1.000	1.100	1.200
A3	0.600	0.650	0.700
b	0.360	--	0.500
b1	0.360	0.380	0.450
c	0.140	--	0.200
c1	0.140	0.150	0.160
D	2.826	2.926	3.026
E	2.600	2.800	3.000
E1	1.526	1.626	1.726
e	0.900	0.950	1.000
e1	1.800	1.900	2.000
L	0.350	0.450	0.600
L1	0.590REF		
L2	0.250BSC		
R	0.100	--	--
R1	0.100	--	0.200
θ	0°	--	8°
θ1	3°	5°	7°
θ2	6°	--	14°

**Recommended Soldering Pad**


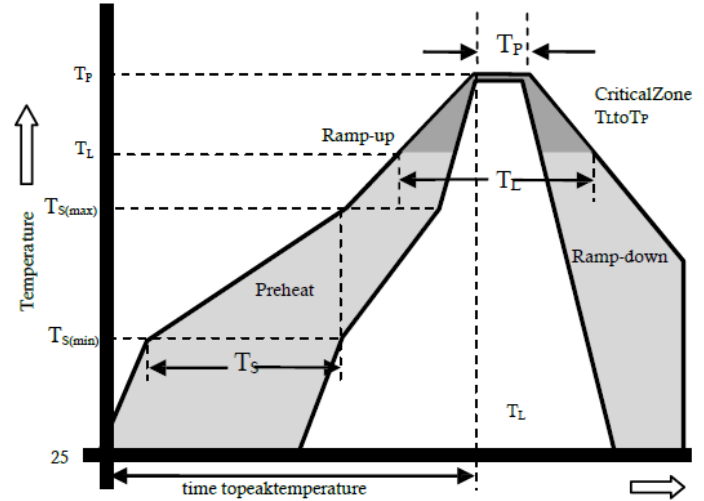
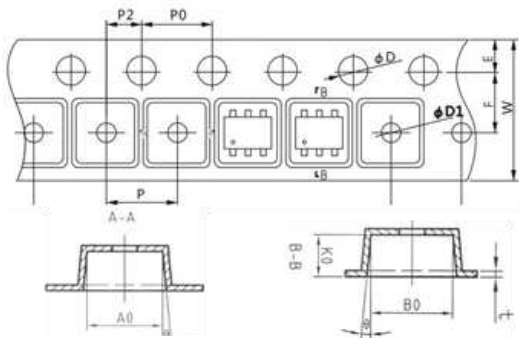
DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.098)	(2.50)
G	.055	1.40
P	.037	0.95
X	.024	0.60
Y	.043	1.10
Z	.141	3.60

Specifications are subject to change without notice.

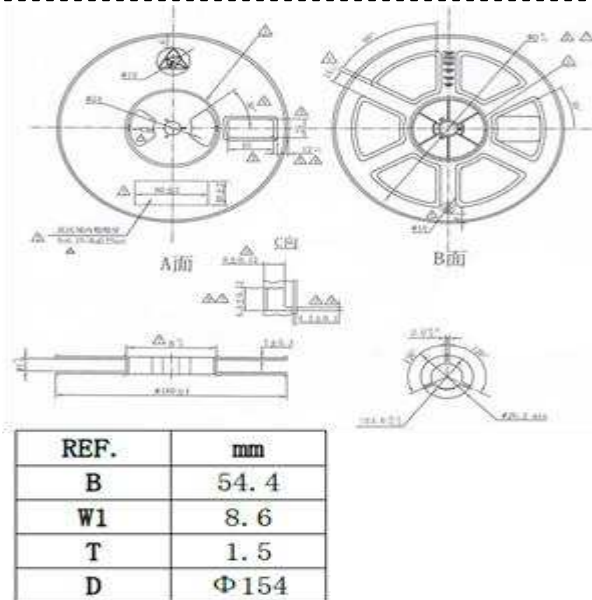
Customers should verify actual device performance in their specific applications

**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) Temperature ( $T_L$ ) to peel		3°C/s Max.
$T_S$ (Max) to $T_I$ -Ramp-up Rate		3°C/s Max.
Reflow	-Temperature ( $T_L$ )(Liquid)	217°C
	-Temperature ( $T_I$ )	60 –150 secs
Peak Temperature ( $T_P$ )		(260+0/-5)°C
Time within 5°C of actual Peak Temperature ( $T_P$ )		8– 15 secs
Ramp-down Rate		3°C/s Max.
Time 25°C to peak Temperature( $T_P$ )		8 min Max
Do not exceed		260°C


**Package Reel Information**


REF.	mm	REF.	mm
E	1.75±0.10	W	8.00±0.10
F	3.5±0.05	P	4.00±0.10
P2	2.00±0.05	A0	3.26±0.10
D	1.55±0.10	B0	3.30±0.10
D1	1.05±0.05	K0	1.05±0.05
P0	4.00±0.10	t	0.20±0.02
10P0	40.00±0.20	$\theta$	3° ~5° TYP



REF.	mm
B	54.4
W1	8.6
T	1.5
D	Φ154

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