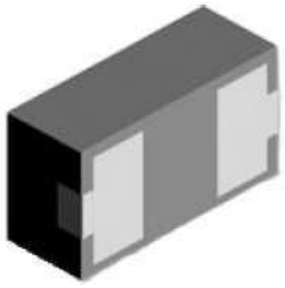
Transient Voltage Suppressor

Version: A0 2016-05-10

Features

- IEC61000-4-2(ESD)±15KV(air), ±8KV(contact)
- IEC61000-4-4(FET) 40A (5/50ns)
- Low capacitance: 0.35pF (Typical)
- Low clamping voltage
- Package optimized for high-speed lines
- Moisture sensitivity level: level 1
- Ultra-small package: DFN1006

Exterior

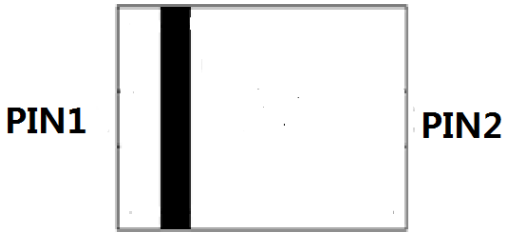


DFN1006

Application information

- Serial ATA
- Desktops, Servers and Notebooks
- Cellular Phones
- MDDI Ports
- USB2.0 Power and Data Line Protection
- Display Ports
- Digital Visual Interfaces (DVI)

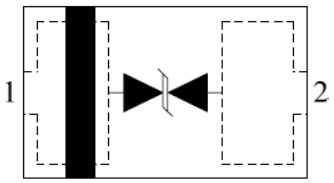
Package (Top View)



Agency Approvals

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

Schematic Symbol



Part Number and Electrical Parameter

Part Number	I_{DRM}@V_{DRM}		V_{BR}@I_{BR}		V_C@I_{PP}①		V_C@I_{PP}①		C_O②
	uA	V	V	mA	V	A	V	A	pF
	MAX		MIN		MAX		MAX		TYP
BV-FA05UC	1.0	5.0	6.0	1.0	12.0	1.0	14.0	2.0	0.35

Absolute maximum rating measured at T=25°C RH=45%-75% (unless otherwise noted).

①Surge Waveform: 8/20us;

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

Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications

Transient Voltage Suppressor

Version: A0 2016-05-10

Part Number System

BV FA05UC

(1) (2)

(1) Bencent TVS

(2) Series: FA05UC etc.

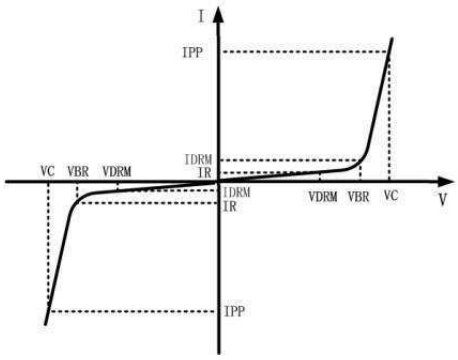
Mark



S: 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	℃
T_S	Storage Temperature Range	-55 to+150	℃

Environmental Characteristics

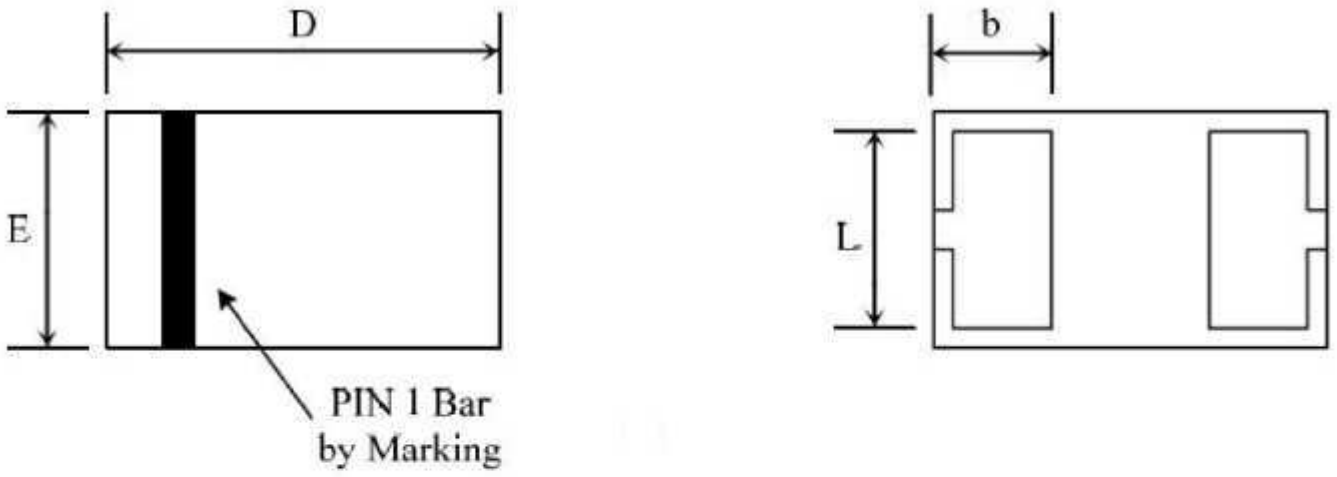
Testing Items	Technical Standards
High Temperature Reverse Bias Test	Temperature:150±3℃,Bias=80%V_{DRM} Time:168H
High Temperature Life Test	Temperature:150℃ Time:168H
High-low Temperature Cycle Test	Temperature:From-40℃ to 125℃ Dwell time:30min,100 cycles
High Temperature & High Humidity Test	Temperature:85℃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

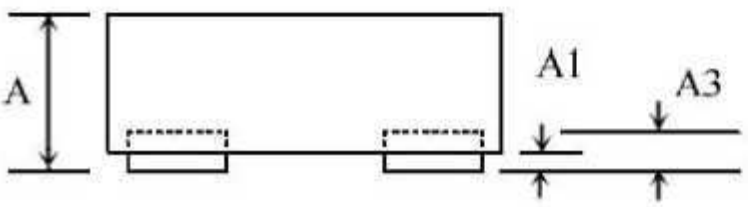
Note: The above testing items can be specified by customers by contacting Bencent service

Specifications are subject to change without notice.
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Product Dimensions

DFN1006



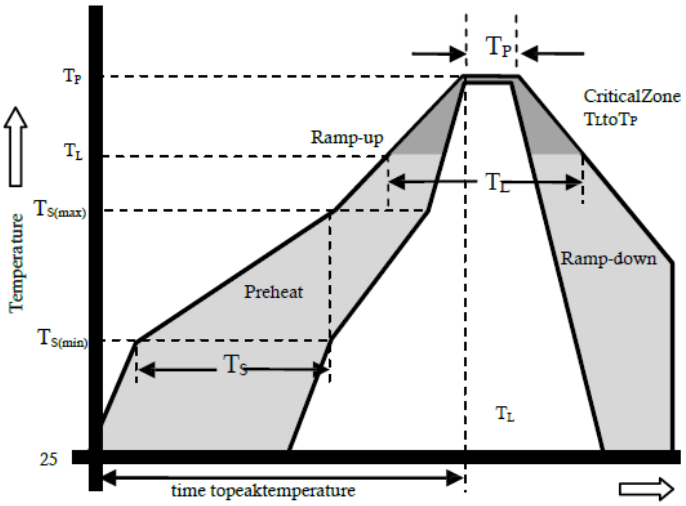


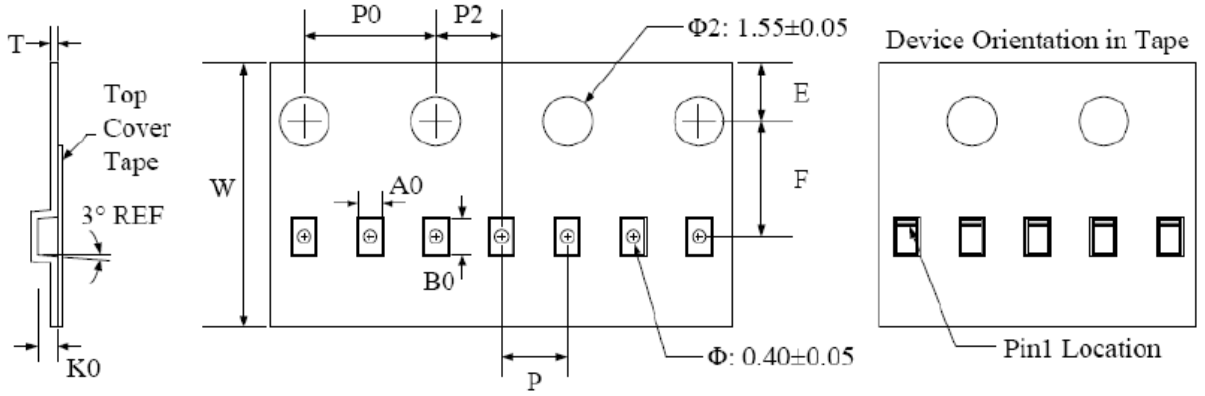
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Minimum	Maximum	Minimum	Maximum
A	0.400	0.550	0.016	0.022
A1	0.000	0.050	0.000	0.002
A3	0.125 REF		0.005 REF	
D	0.950	1.050	0.037	0.041
E	0.550	0.650	0.022	0.026
L	0.450	0.550	0.018	0.022
b	0.250	0.400	0.100	0.016

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℃
	Temperature Max	200℃
	Time (Min to Max)	20 – 80 secs
Average ramp up rate (Liquid) Temperature (T_L)to peal		3℃/s Max.
T_S (Max) to T_l-Ramp-up Rate		3℃/s Max.
Reflow	-Temperature (T_L)(Liquid)	217℃
	-Temperature (T_L)	60 –150 secs
Peak Temperature (T_P)		(260+0/-5)℃
Time within 5℃ of actual Peak Temperature (T_P)		8– 15 secs
Ramp-down Rate		6℃/s Max.
Time 25℃ to peak Temperature(T_P)		8 min Max
Do not exceed		260℃





Symbol	W	A0	B0	K0	E	F	P	P0	P2	T
Dimensions (mm)	8.00±0.1	0.7±0.05	1.15±0.05	0.55±0.05	1.75±0.1	3.5±0.05	2.0±0.1	4.0±0.1	2.0±0.05	0.2±0.05

Package Reel Information

Outline	Reel (pcs)	Per Carton (pcs)	Reel Diameters (mm)	Carton Size (mm)		
				L	W	H
Taping	10,000	90,000	178	390	370	220

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