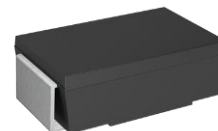


## Thyristor Surge Suppressor

### Features

- Excellent capability of absorbing transient surge
- Quick response to surge voltage (nS Level)
- Low Capacitance <20pF
- Eliminates overvoltage caused by fast rising transients
- Moisture sensitivity level: level 1
- Weight: 70mg
- Non degenerative

### Exterior

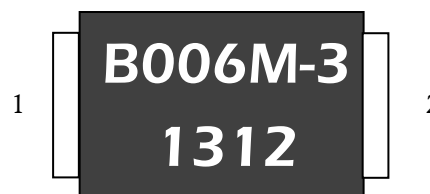


SMA

### Application Information

- Video

### Package (top view)



### Agency Approvals

Icon	Description
<b>RoHS</b>	Compliance with 2011/65/EU

### Schematic Symbol



### Part Number and Electrical Parameter

Part Number	I <sub>DRM</sub> @ V <sub>DRM</sub>		V <sub>s</sub> <sup>①</sup> @ I <sub>s</sub>		V <sub>T</sub> @ I <sub>T</sub>		I <sub>H</sub>	C <sub>o</sub>	C <sub>o</sub> <sup>②</sup>
	μA	V	V	mA	V	A	mA	pF	pF
	MAX		MAX		MAX		MIN	TYP	MAX
BS0060M-3	5	6	25	800	4	2.2	10	15	20

Absolute maximum ratings measured at T<sub>A</sub>= 25°C RH = 45%-75% (unless otherwise noted).

① V<sub>s</sub> is measured at 100KV/S

② Off-state Capacitance is measured at V<sub>DC</sub>=2V, V<sub>RMS</sub>=1V, f=1MHz

## Thyristor Surge Suppressor

### Part Numbering System

BS 0060 M -3  
(1) (2) (3) (4)

(1) Bencent Semiconductor Surge Arrester

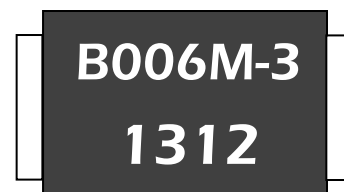
(2) Off-state Voltage, e.g.0060=6 × 10<sup>0</sup>=6V

(3) Package: SMA

Rating Surge Voltage:4KV (1.2/50μs, 42Ω) , omitted in the Mark

(4) Low Capacitance

### Mark

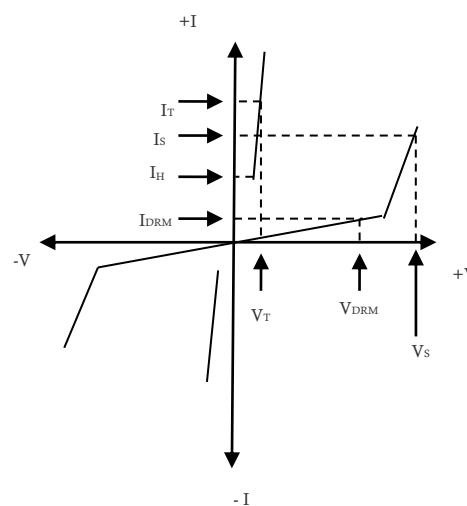


B006M-3: Part Number

1312: December, 2013

### V-I Curve

Parameters	Definition
V <sub>DRM</sub>	Peak Off-state Voltage
I <sub>DRM</sub>	Off-state Current
V <sub>S</sub>	Switching Voltage
I <sub>S</sub>	Switching Current
I <sub>H</sub>	Holding Current
V <sub>T</sub>	On-state Voltage
I <sub>T</sub>	On-state Current
C <sub>O</sub>	Off-state Capacitance



### Surge Ratings

Current Waveform	8/20μs
Voltage Waveform	1.2/50μs 42Ω
I <sub>pp</sub>	96A

-Peak pulse current rating (I<sub>PP</sub>) is repetitive and guaranteed for the life of the product;

-Bencent only makes the test for 8/20μs @96A(1.2/50μs 42Ω 4000V), Bencent will not take any obligation for these parameters, so before applying our parts, please make sure to verify the parameters listed in the above table.

### Thermal Considerations

Symbol	Parameter	Value	Unit
T <sub>J</sub>	Operating Junction Temperature Range	-40 to +125	°C
T <sub>S</sub>	Storage Temperature Range	-60 to +125	°C

### Physical Characteristics

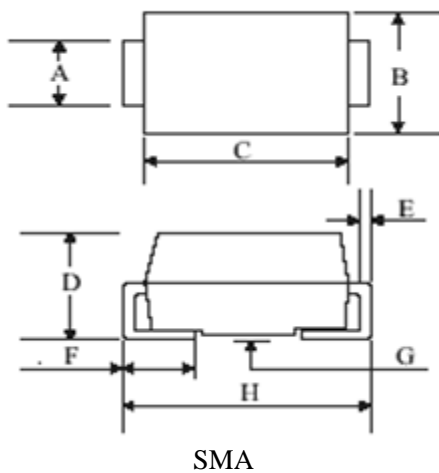
Lead Material	Copper Alloy
Body Material	UL recognized epoxy meeting flammability classification 94V-0
Terminal Finish	100% Matte-Tin Plated

Environmental Characteristics

Testing Items	Technical Standards
High Temperature Reverse Bias Test	Temperature: $125\pm 3^{\circ}\text{C}$ , Bias= $80\%V_{\text{DRM}}$ 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, 10-100 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 to 168H
Resistance of Soldering Heat	Temperature: $260\pm 5^{\circ}\text{C}$ Time of dip soldering: 10s, 3times

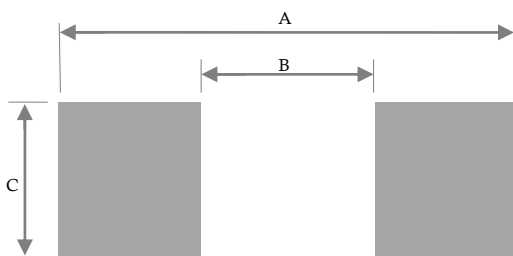
Note: The above testing items can be specified by customers by contacting Bencent service

Product Dimensions



REF.	mm	inch
A	1.25-1.65	0.049-0.065
B	2.18-2.79	0.086-0.110
C	4.06-4.57	0.160-0.180
D	1.70-2.31	0.067-0.091
E	0.15-0.31	0.006-0.012
F	0.89-1.50	0.035-0.059
G	0.10-0.20	0.004-0.008
H	4.70-5.31	0.185-0.209

Recommended Soldering Pad



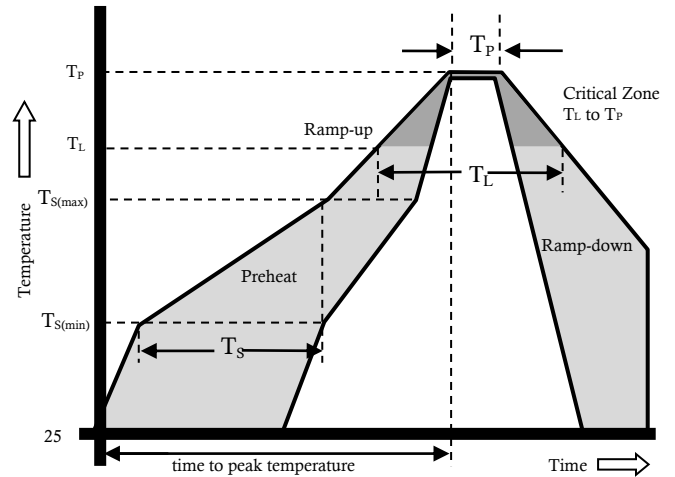
REF	mm	inch
A	6.00	0.236
B	2.00	0.079
C	2.00	0.079

Thyristor Surge Suppressor

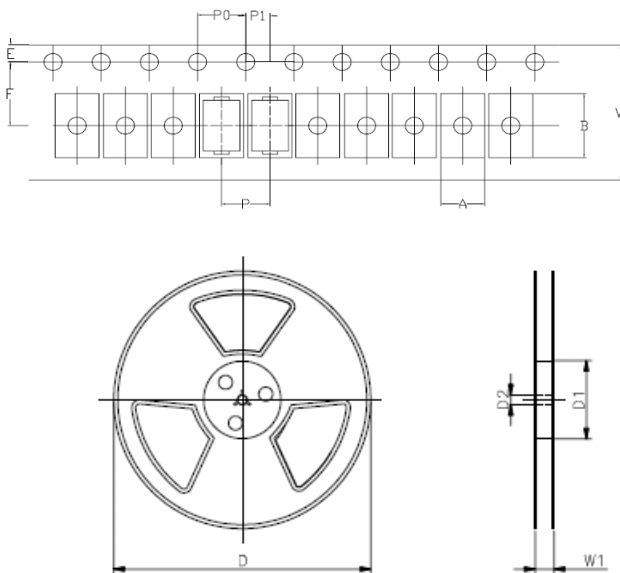
Version: A1 2017-12-11

Reflow Profile

Reflow Condition		Pb-Free Assembly
Pre Heat	Temperature Min.	+150°C
	Temperature Max.	+200°C
	Time (Min to Max)	60 – 180 secs.
Average ramp up rate (Liquidus Temp (T <sub>L</sub> ) to peak)		3°C/sec. Max.
Ts(max) to T <sub>L</sub> - Ramp-up Rate		3°C/sec. Max.
Reflow	- Temperature (T <sub>L</sub> ) (Liquidus)	+217°C
	- Temperature (T <sub>L</sub> )	60 – 150 secs.
Peak Temp (T <sub>P</sub> )		+(260+0/-5) °C
Time within 5°C of actual Peak Temp (T <sub>P</sub> )		25 secs.
Ramp-down Rate		6°C/sec. Max.
Time 25°C to peak Temp (T <sub>P</sub> )		8 min. Max.
Do not exceed		+260°C



Package Reel Information



REF	mm	inch
A	2.6+/-0.15	0.102+/-0.006
B	5.15+/-0.15	0.203+/-0.006
d	1.5+/-0.1	0.059+/-0.004
D	330.0	13.0
D1	100+/-3	3.937+/-0.118
D2	13+/-0.3	0.512+/-0.012
E	1.5+/-0.2	0.059+/-0.008
F	5.65+/-0.2	0.222+/-0.008
P	4.0+/-0.2	0.157+/-0.008
P0	4.0+/-0.2	0.157+/-0.008
P1	2.0+/-0.2	0.079+/-0.008
W	12.0+/-0.2	0.472+/-0.008
W1	16.8+/-2.0	0.661+/-0.079

Outline	Reel (pcs)	Per Carton (pcs)	Reel Diameters (mm)	Carton Size(mm)		
				L	W	H
Taping	5,000	80,000	330	360	360	385

单击下面可查看定价，库存，交付和生命周期等信息

[>>Bencent \(槟城\)](#)