





1. Introduction

Bencent BS series is a solid state surge protector, especially designed for protecting sensitive telecommunication equipment against lightning and transient voltage, suspending agent in PHONE、MODEM、ADSL、SLIC、T1/E1、RS232/485/422 interface, by those who extortionate sensitive elements protection of overvoltage.

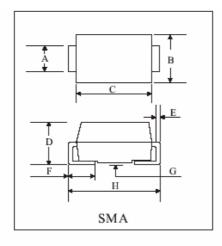
2. Notes

BS XXXX M (1) (2) (3)

- (1) Bencent series of semiconductor;
- (2) Series: 0080, 0030, 0640, 0720, 0800, 1800, 2300, 2600, 3100, 3500 etc.
- (3) Package and Rating surge current: SMA; 50A (10/1000µS)

3. Features

- · Excellent capability of absorbing transient surge
- Quick response to surge voltage
- Eliminates over-voltage caused by fast rising transients
- Non degenerative



Unit: mm

	A	В	C	D	Е	F	G	Н
SMA	1.29-1.70	2.18-2.79	4.06-4.57	1.70-2.31	0.152-0.305	0.89-1.50	0.102-0.203	4.70-5.31







5. Electrical Parameters (@T=25℃, RH=45%-75%)

	VDRM	Idrm	Vs	Is	\mathbf{V}_{T}	I τ	I н	Co
Туре	V	μΑ	V	mA	٧	Α	mA	рF
		MAX	TYP	MAX	MAX		MIN	MAX
BS0080M	6	5	25	800	4	1	40	100
BS0300M	25	5	40	800	4	1	50	100
BS0640M	58	5	77	800	4	1	150	100
BS0720M	65	5	88	800	4	1	150	100
BS0800M	75	5	98	800	4	1	150	100
BS1800M	160	5	220	800	4	1	150	60
BS2300M	190	5	260	800	4	1	150	60
BS2600M	220	5	300	800	4	1	150	50
BS3100M	275	5	350	800	4	1	150	50
BS3500M	320	5	400	800	4	1	150	50

Notes:

- Vs is measured at 100KV/S
- Off-state capacitance is measured in 1MHz@DC2V
 All measurements are made at an ambient temperature of 25℃

Item	Criterion	Condition	Method	Result
High temperature with voltage test	MIL-STD-750B METHOD-1026	T _A =150℃ BiasV=80%VDRM T=96Hours	In the oven of regulated temperature,apply specific bias Voltage on the two electrodes of GDT for a specific period of time	primary,last tests should meet the requirements of regulations
Soldering Thermal test	MIL-STD-750B METHOD-2031	T _A =260+5℃/-0℃ T=10Sec	Put into the Sn stove	primary,last tests should meet the requirements of regulations
Solder ability test	MIL-STD-202E METHOD-208	T _A =230℃ T=5Sec	Put into the Sn stove	primary,last tests should meet the requirements of regulations









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2. Notes

<u>BS</u>	XXXX	<u>N</u> –	– <u>A</u>
(1)	(2)	(3)	(4)

(1) Bencent series of semiconductor;

(2) Series: 0640, 0720, 0800, 1800, 2300, 2600, 3100, 3500 etc.

(3) Package: SMB

(4) Rating surge current: 50A (10/1000µS)

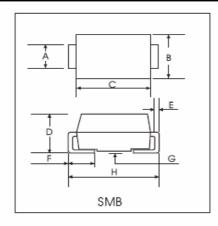
3. Features

· Excellent capability of absorbing transient surge

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· Non degenerative



Unit: mm

	Α	В	С	D	Е	F	G	Н
SMB	1.96-2.11	3.30-3.94	4.06-4.57	2.13-2.44	0.152-0.305	0.76-1.52	0.102-0.203	5.21-5.59









5. Electrical Parameters (@T=25℃, RH=45%-75%)

	VDRM	Idrm	Vs	Is	\mathbf{V}_{T}	Iτ	Iн	Co
Туре	V	μA	V	mA	V	A	mA	pF
		MAX	TYP	MAX	MAX		MIN	MAX
BS0080N-A	6	5	25	800	4	1	40	100
BS0300N-A	25	5	40	800	4	1	50	100
BS0640N-A	58	5	77	800	4	1	150	100
BS0720N-A	65	5	88	800	4	1	150	100
BS0800N-A	75	5	98	800	4	1	150	100
BS1800N-A	160	5	220	800	4	1	150	60
BS2300N-A	190	5	260	800	4	1	150	60
BS2600N-A	220	5	300	800	4	1	150	50
BS3100N-A	275	5	350	800	4	1	150	50
BS3500N-A	320	5	400	800	4	1	150	50

Notes:

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Item	Criterion	Condition	Method	Result
High temperature with voltage test	MIL-STD-750B METHOD-1026	T _A =150℃ BiasV=80%VDRM T=96Hours	In the oven of regulated temperature,apply specific bias Voltage on the two electrodes of GDT for a specific period of time	primary,last tests should meet the requirements of regulations
Soldering Thermal test	MIL-STD-750B METHOD-2031	T _A =260+5℃/-0℃ T=10Sec	Put into the Sn stove	primary,last tests should meet the requirements of regulations
Solder ability test	MIL-STD-202E METHOD-208	T _A =230℃ T=5Sec	Put into the Sn stove	primary,last tests should meet the requirements of regulations







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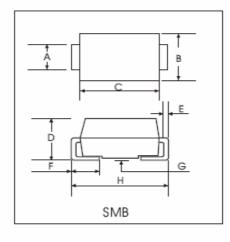
2. Notes

<u>BS</u>	<u>XXXX</u>	<u>N</u>
(1)	(2)	(3)

- (1) Bencent series of semiconductor;
- (2) Series: 0640, 0720, 0800, 1800, 2300, 2600, 3100, 3500 etc.
- (3) Package and Rating surge current: SMB; 75A (10/1000µS)

3. Features

- · Excellent capability of absorbing transient surge
- Quick response to surge voltage
- Eliminates over-voltage caused by fast rising transients
- · Non degenerative



Unit: mm

	Α	В	С	D	Е	F	G	Н
SMB	1.96-2.11	3.30-3.94	4.06-4.57	2.13-2.44	0.152-0.305	0.76-1.52	0.102-0.203	5.21-5.59









5. Electrical Parameters (@T=25℃, RH=45%-75%)

	VDRM	ldrm	Vs	ls	Vт	lт	lн	Со
Type	V	μΑ	V	mA	V	Α	mΑ	pF
		MAX	TYP	MAX	MAX		MIN	MAX
BS0640N	58	5	77	800	4	1	150	150
BS0720N	65	5	88	800	4	1	150	150
BS0800N	75	5	98	800	4	1	150	150
BS1800N	160	5	220	800	4	1	150	80
BS2300N	190	5	260	800	4	1	150	80
BS2600N	220	5	300	800	4	1	150	60
BS3100N	275	5	350	800	4	1	150	60
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Notes:

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- Off-state capacitance is measured in 1MHz@DC2V
- All measurements are made at an ambient temperature of 25℃

Item	Criterion	Condition	Method	Result
			In the oven of regulated	primary,last tests
High	MIL-STD-750B	T _A =150℃	temperature,apply specific	should meet the
temperature with	METHOD-1026	BiasV=80%VDRM	bias Voltage on the two	requirements of
voltage test	WIE 1110D-1020	T=96Hours	electrodes of GDT for a	regulations
			specific period of time	
				primary,last tests
Soldering	MIL-STD-750B	T _A =260+5℃/-0℃	Put into the Sn	should meet the
Thermal test	METHOD-2031	T=10Sec	stove	requirements of
Theimai test	WETTIOD-2031	1=100ec	Slove	regulations
				primary,last tests
Soldor obility	MIL-STD-202E	T _A =230℃	Put into the Sn	should meet the
Solder ability				requirements of
test	METHOD-208	T=5Sec	stove	regulations
				-







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 $\frac{BS}{(1)} \quad \frac{XXXX}{(2)} \quad \frac{N}{(3)} \quad -\frac{C}{(4)}$

(1) Bencent series of semiconductor;

(2) Series:0030, 0640, 0720, 0800, 1800, 2300, 2600, 3100, 3500 etc.

(3) Package: SMB

(4) Rating surge current: 100A (10/1000µS)

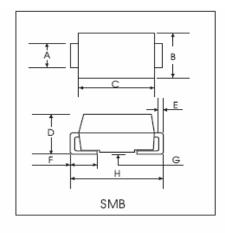
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5. Electrical Parameters (@T=25℃, RH=45%-75%)

	V DRM	IDRM	V s	Is	V T	lτ	lн	Co
Type	V	μΑ	V	mA	V	Α	mA	pF
		MAX	TYP	MAX	MAX		MIN	MAX
BS0300N-C	25	5	40	800	4	1	150	200
BS0640N-C	58	5	77	800	4	1	150	200
BS0720N-C	65	5	88	800	4	1	150	200
BS0800N-C	75	5	98	800	4	1	150	200
BS1800N-C	160	5	220	800	4	1	150	100
BS2300N-C	190	5	260	800	4	1	150	100
BS2600N-C	220	5	300	800	4	1	150	80
BS3100N-C	275	5	350	800	4	1	150	80
BS3500N-C	320	5	400	800	4	1	150	80

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High	MIL-STD-750B METHOD-1026	T _A =150℃	temperature,apply specific	should meet the
temperature with		BiasV=80%VDRM	bias Voltage on the two	requirements of
voltage test		T=96Hours	electrodes of GDT for a	regulations
			specific period of time	
				primary,last tests
Soldering	MIL-STD-750B	T _A =260+5℃/-0℃	Put into the Sn	should meet the
Thermal test	METHOD-2031	T=10Sec	stove	requirements of
				regulations
				primary,last tests
Solder ability	MIL-STD-202E METHOD-208	T _A =230℃	Put into the Sn	should meet the
test		T=5Sec	stove	requirements of
				regulations