



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

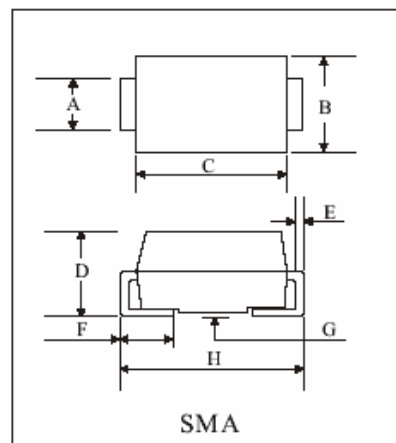
BS **XXXX** **M**
(1) (2) (3)

- (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 (10/1000 μ S)

3. Features

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

4. Dimensions



Unit: mm

	A	B	C	D	E	F	G	H
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°C, RH=45%-75%)

Type	V _{DRM}	I _{DRM}	V _S	I _S	V _T	I _T	I _H	C _o
	V	μA	V	mA	V	A	mA	pF
		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:

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

6. Reliability Items

Item	Criterion	Condition	Method	Result
High temperature with voltage test	MIL-STD-750B METHOD-1026	T _A =150°C BiasV=80%V _{DRM} 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°C/-0°C 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°C T=5Sec	Put into the Sn stove	primary, last tests should meet the requirements of regulations

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

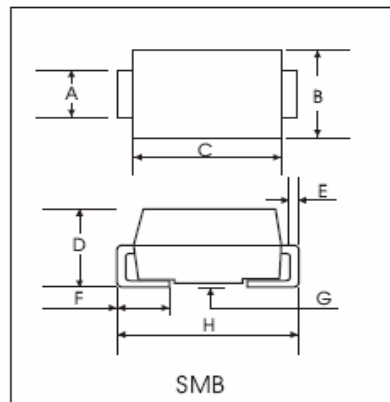
BS **XXXX** **N** — **A**
 (1) (2) (3) (4)

- (1) Bencent series of semiconductor;
- (2) Series: 0640, 0720, 0800, 1800, 2300, 2600, 3100, 3500 etc.
- (3) Package: SMB
- (4) Rating surge current: 50A (10/1000 μ S)

3. Features

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

4. Dimensions



Unit: mm

	A	B	C	D	E	F	G	H
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°C, RH=45%-75%)

Type	V _{DRM}	I _{DRM}	V _S	I _S	V _T	I _T	I _H	C _o
	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:

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

6. Reliability Items

Item	Criterion	Condition	Method	Result
High temperature with voltage test	MIL-STD-750B METHOD-1026	T _A =150°C BiasV=80%V _{DRM} 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°C/-0°C 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°C T=5Sec	Put into the Sn stove	primary, last tests should meet the requirements of regulations



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

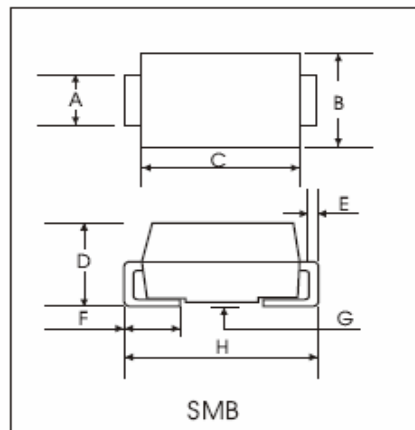
BS XXXX N
(1) (2) (3)

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

3. Features

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

4. Dimensions



Unit: mm

	A	B	C	D	E	F	G	H
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°C, RH=45%-75%)

Type	V _{DRM}	I _{DRM}	V _s	I _s	V _T	I _T	I _H	Co
	V	μA	V	mA	V	A	mA	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
BS3500N	320	5	400	800	4	1	150	60

Notes:

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

6. Reliability Items

Item	Criterion	Condition	Method	Result
High temperature with voltage test	MIL-STD-750B METHOD-1026	T _A =150°C BiasV=80%V _{DRM} 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°C/-0°C 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°C T=5Sec	Put into the Sn stove	primary, last tests should meet the requirements of regulations

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

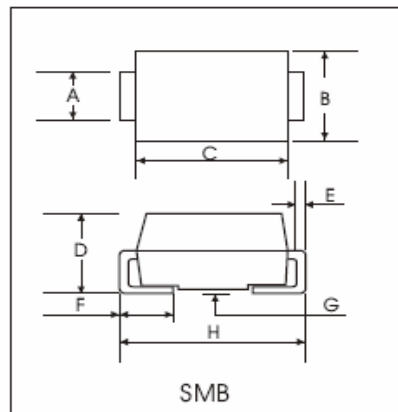
BS **XXXX** **N** — **C**
 (1) (2) (3) (4)

- (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)

3. Features

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

4. Dimensions



Unit: mm

	A	B	C	D	E	F	G	H
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°C, RH=45%-75%)

Type	V _{DRM}	I _{DRM}	V _s	I _s	V _T	I _T	I _H	C _o
	V	μA	V	mA	V	A	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

Notes:

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

6. Reliability Items

Item	Criterion	Condition	Method	Result
High temperature with voltage test	MIL-STD-750B METHOD-1026	T _A =150°C BiasV=80%V _{DRM} 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°C/-0°C 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°C T=5Sec	Put into the Sn stove	primary, last tests should meet the requirements of regulations