



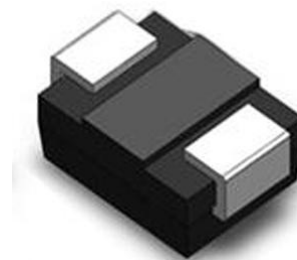
SSCHP0080SB

1-line Bidirectional Thyristor Surge Suppressors

● Description

SSCHP0080SB is designed to protect baseband equipment such as modems, line cards, CPE and DSL equipments from damaging overvoltage transients. The series provide a robust peak surge current capability which enables equipments to comply with global regulatory standards.

● PIN configuration



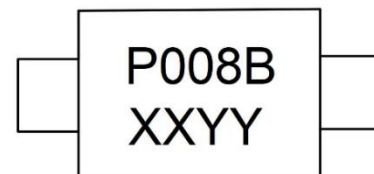
SMB/DO-214AA

● Features

- ✧ (SMB)DO-214AA Package
- ✧ Low on-state voltage
- ✧ Low capacitance
- ✧ Low leakage current
- ✧ High reliability
- ✧ Fails short circuit when surged in excess of ratings
- ✧ Quick response to surge voltage (ns Level)
- ✧ Does not degrade in capability after multiple surge events within limit.



Circuit diagram



Marking

(XXYY: Internal Traceability Code)

● Applications

- ✧ Audio/Video line
- ✧ Network and telecom
- ✧ Data lines and security systems
- ✧ Serial ports

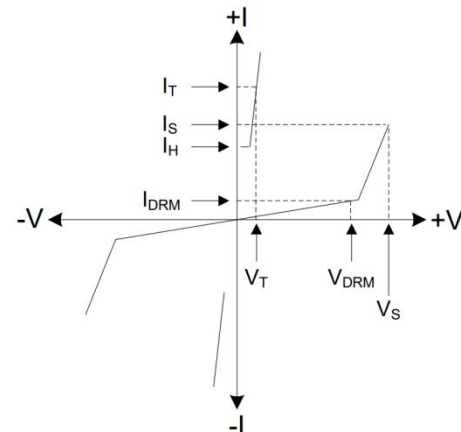
● Mechanical Characteristics

- ✧ Case Material: "Green" Molding Compound.
- ✧ UL Flammability Classification Rating 94V-0
- ✧ Device meets MSL 3 requirements
- ✧ Terminal Connections: See Diagram Below
- ✧ Marking Information: See Below



- **Electronic Parameter**

Symbol	Parameter
V_{DRM}	Peak Off-state Voltage
V_S	Switching Voltage
V_T	On-state Voltage
I_{DRM}	Leakage Current
I_S	Switching Current
I_T	On-state Current
I_H	Hold Current
C_O	Junction Capacitance
I_{PP}	Maximum Reverse Peak Pulse Current



- **Absolute maximum rating @ $T_A=25^{\circ}\text{C}$**

Parameter	Symbol	Value	Units
Peak Pulse Voltage (10/700us)	V_{PP}	4	kV
Peak Pulse Current (10/1000us)	I_{PP}	80	A
Peak Pulse Current (8/20us)	I_{PP}	250	A
Storage Temperature	T_{STG}	-40/+150	$^{\circ}\text{C}$
Operating Temperature	T_J	-40/+125	$^{\circ}\text{C}$

- **Electrical Characteristics @ $T_A=25^{\circ}\text{C}$**

Part Number	V_{drm} @ $I_{drm}=1\mu\text{A(V)}$	$I_{drm@V}$ $_{drm}(\mu\text{A})$	V_S @100kV/ S (V)	I_S (mA)	V_t @ $I_t=2.2\text{A}$ (V)	I_t (A)	I_h (mA)	C_o @1MHz, 2V bias (pF)
	Min.	Max.	Max.	Max.	Max.	Max.	Min.	Typ.
SSCHP0080SB	6	5	15	800	4	2.2	30	40

Note:

ALL measurements are made at an ambient temperature of 25°C .

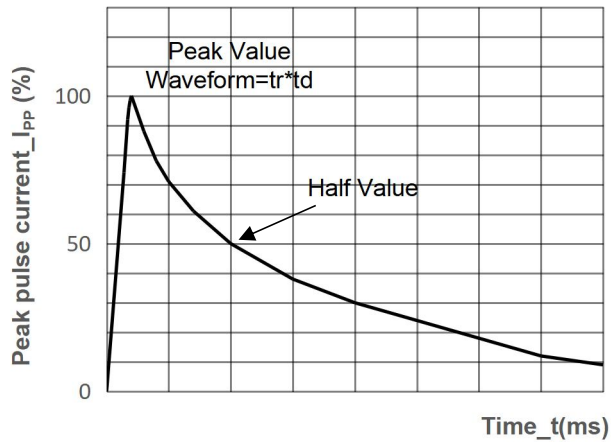
temperature range. V_{DRM} is measured at I_{DRM} .

Off-state capacitance(C_o) is measured at 1 MHz with a 2V bias.

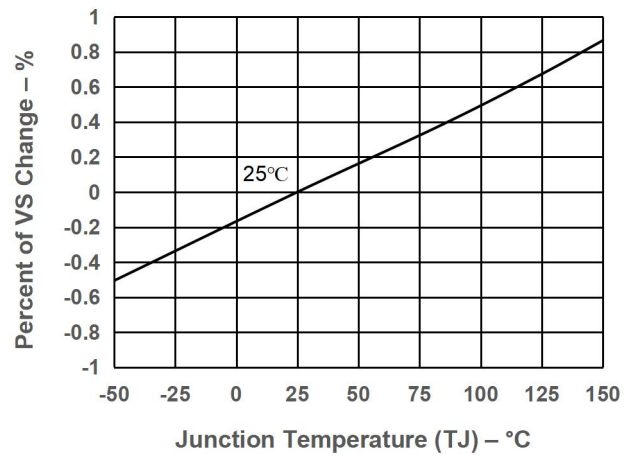
V_S is measured at 100kV/S.



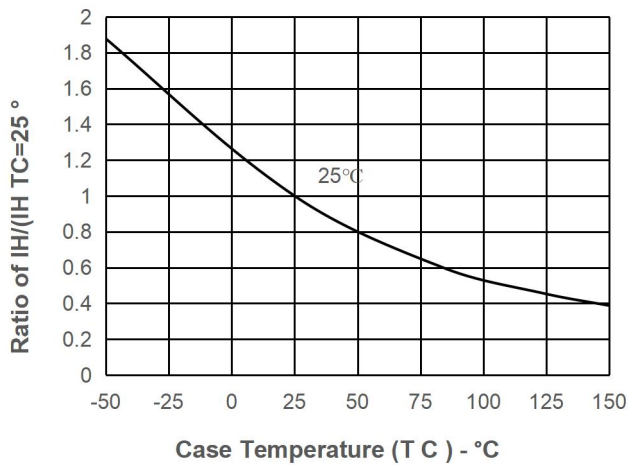
- Typical Performance Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise Specified)



Tr*Td Pulse Waveform



Normalized Vs Change vs. Junction Temperature



Normalized DC Holding Current vs. Case Temperature



- Package Information

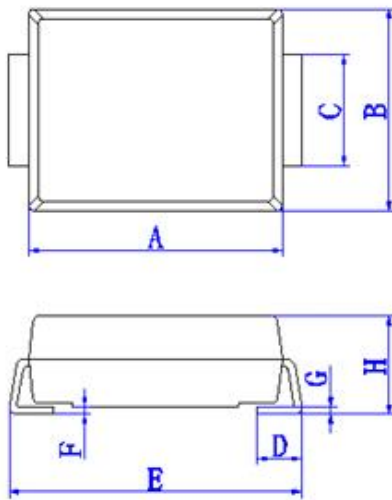
Ordering Information

Device	Package	Qty per Reel	Reel Size
SSCHP0080SB	(SMB)DO-214AA	3000	7 Inch

Mechanical Data

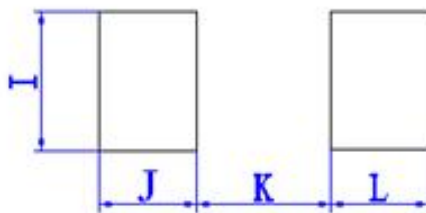
Case: (SMB)DO-214AA

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters	
	Min.	Max.
A	4.22	4.70
B	3.40	3.94
C	1.90	2.1
D	0.90	1.42
E	5.21	5.59
F	0.00	0.23
G	0.15	0.25
H	1.95	2.60

Recommended Pad outline (Unit: mm)



DIM	Millimeters	
	Min.	Max.
I	2.20	/
J	2.1	/
K	/	2.74
L	2.1	/



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