

Description

TSS Series are 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.

- Low voltage overshoot
- Low on-state voltage
- Does not degrade in capability after multiple surge events within limit.
- Low capacitance
- Fails short circuit when surged in excess of ratings
- Pb-free E3 means 2nd level interconnect is Pb-free and the terminal finish material is tin(Sn) (IPC/JEDEC J-STD609A.01)

Mechanical Characteristics

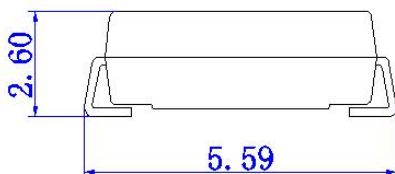
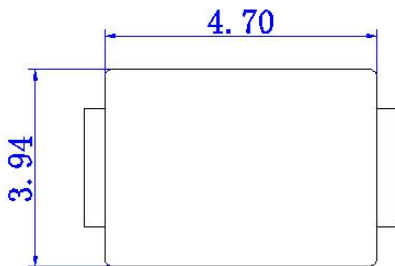
Package: SMB/DO-214AA

- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Polarity: Color band denotes cathode except bi-directional models
- Weight: 0.10g
- Terminal Connections: See Diagram Below
- Marking Information: See Below

Applications

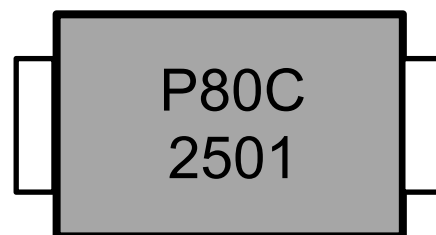
- Audio/Video line
- Network and telecom
- Data lines and security systems
- Serial ports

Dimensions & Symbol (Unit: mm Max)



Bi-directional

Marking Information



P80C: Marking Code

2501: Date code(2025 year, 01 week)

Electrical Characteristics (T=25°C)

Part Number	$I_{DRM}@V_{DRM}$		$V_S @I_S$		$V_T@ I_T$		I_H	C_O
	μA	V	V	mA	V	A	mA	pF
	max	min	max	max	max	max	min	max
P8000SC	5	800	1050	800	4	2.2	20	100

Notes:

- All measurements are made at an ambient temperature of 25°C. I_{PP} applies to -40°C through +85°C temperature range.
- Off-state capacitance (C_O) is measured at 1 MHz with a 2 V bias and is typical value

Absolute Maximum Ratings(T=25°C, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Operating junction temperature range	T_j	-40 to +125	°C
Storage temperature range	T_{stg}	-65 to +150	°C
Repetitive peak pulse Voltage(10/700uS)	V_{PP}	6000	V

Typical Characteristics

FIG1: V-I cure characteristics

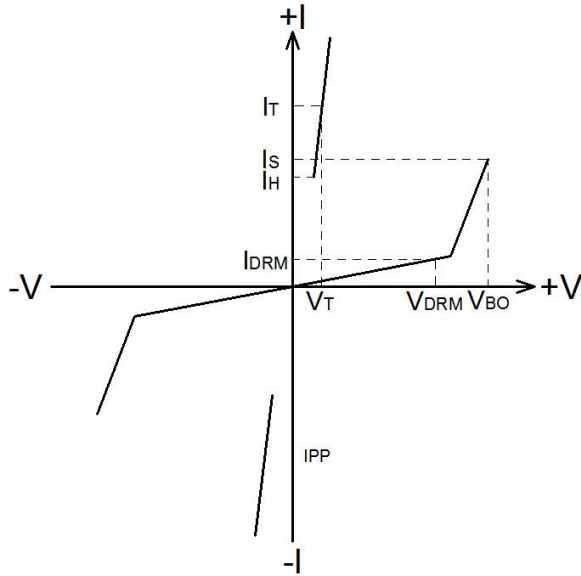


FIG2: Pulse Waveform

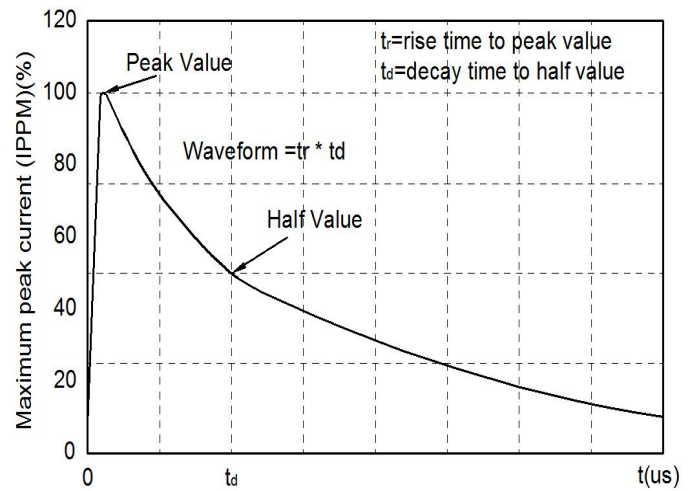


FIG3: Normalized V_s change vs.junction temperature

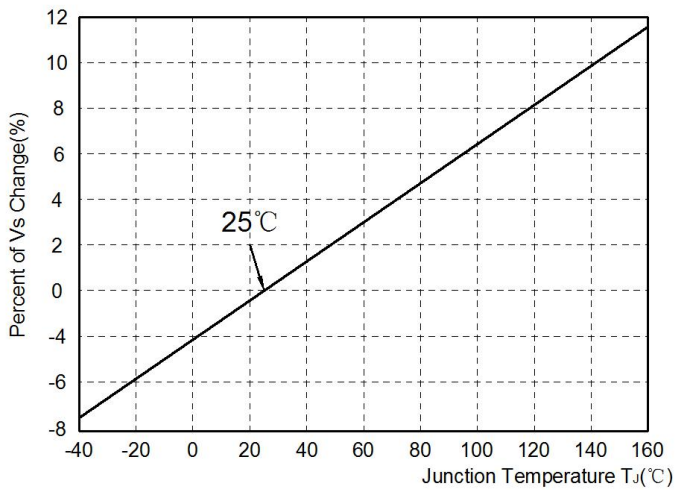
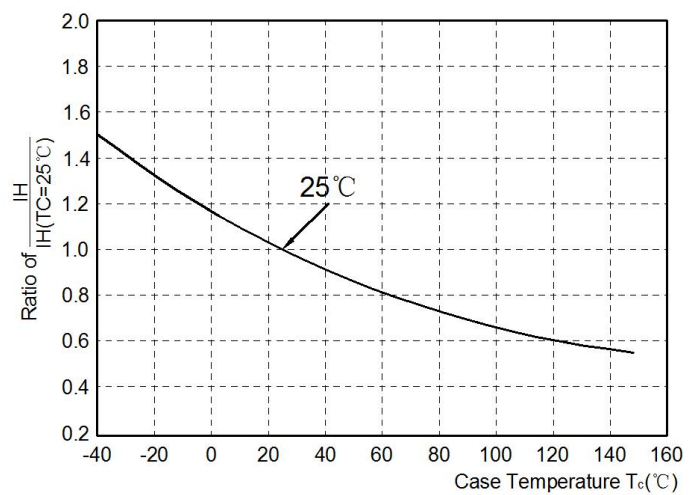
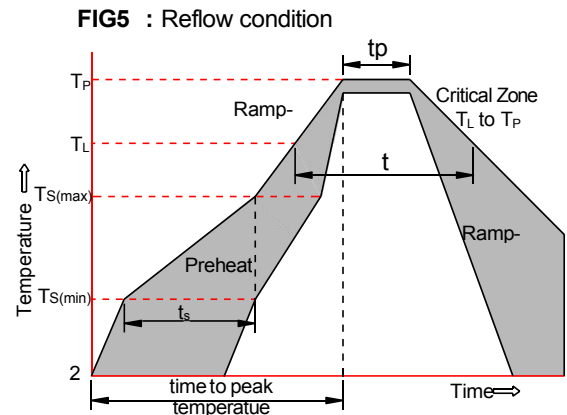


FIG4: Normalized DC holding current vs.case temperature

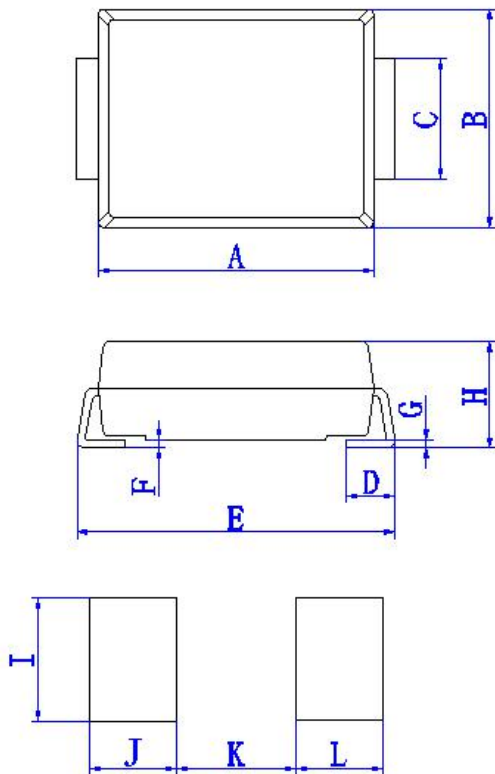


Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_p)		8 min. Max
Do not exceed		+260°C



Typical Characteristics



Ref.(mm)	Millimeters	
	Min.	Max.
A	4.22	4.70
B	3.4	3.94
C	1.9	2.1
D	0.90	1.42
E	5.21	5.59
F	0	0.23
G	0.15	0.25
H	1.95	2.60
I	2.2	/
J	2.1	/
K	/	2.74
L	2.1	/