

Thyristors Surge Protection Device

Features

- Low voltage overshoot
- Low on-state voltage
- Low capacitance
- Low leakage current
- High reliability
- Quick response to surge voltage (ns Level)
- Eliminates overvoltage caused by fast rising transients.

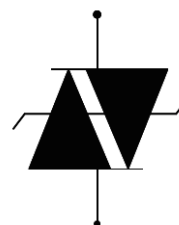
DO-214AA(SMB)



Applications

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

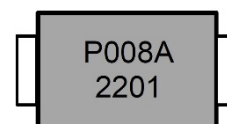
Circuit diagram



Mechanical Characteristics

- Package: SMB/DO-214AA
- Case Material : Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity : Meet MSL 1
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- RoHS Compliant.

Marking Information



P008A : Device Marking Code
XXXX = Data Code

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}	2000	V

Electrical Characteristics (T=25°C, unless otherwise noted)									
Part Number	Marking Code	V _{DRM}	I _{DRM}	V _s @ I _s		I _H	V _T @ I _T		C _o
		V	μA	V	mA	mA	V	A	pF
			max	max	max	min	max	max	max
TSC0080SA	P008A	6	5	25	800	20	4	2.2	75
TSC0150SA	P01A	14	5	20	800	20	4	2.2	75
TSC0220SA	P02A	18	5	30	800	20	4	2.2	75
TSC0300SA	P03A	25	5	40	800	50	4	2.2	75
TSC0640SA	P06A	58	5	77	800	100	4	2.2	75
TSC0720SA	P07A	65	5	88	800	100	4	2.2	70
TSC0900SA	P09A	75	5	98	800	100	4	2.2	65
TSC1100SA	P11A	90	5	130	800	100	4	2.2	65
TSC1300SA	P13A	120	5	160	800	100	4	2.2	65
TSC1500SA	P15A	140	5	180	800	100	4	2.2	65
TSC1800SA	P18A	170	5	220	800	100	4	2.2	65
TSC2000SA	P20A	180	5	220	800	100	4	2.2	65
TSC2300SA	P23A	190	5	260	800	100	4	2.2	65
TSC2600SA	P26A	220	5	300	800	100	4	2.2	65
TSC3100SA	P31A	275	5	350	800	100	4	2.2	55
TSC3500SA	P35A	320	5	400	800	100	4	2.2	55

Notes :

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

Typical Characteristics

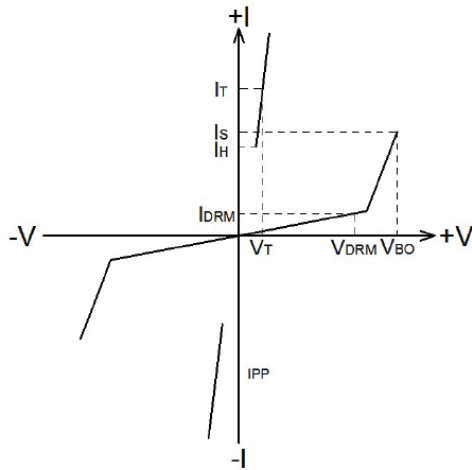


Fig 1. V-I cure characteristics

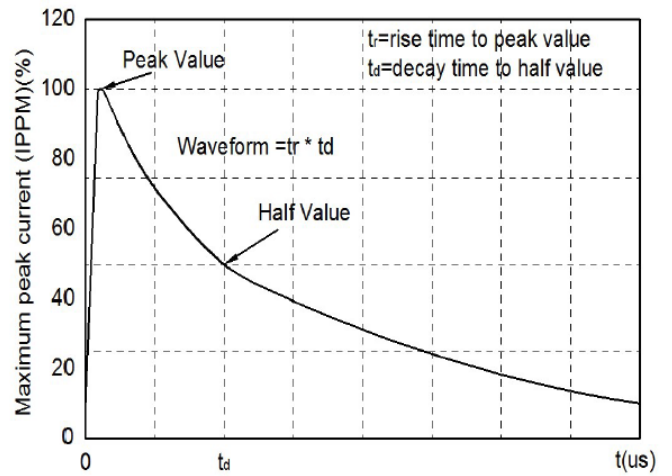


Fig 2. Pulse Waveform

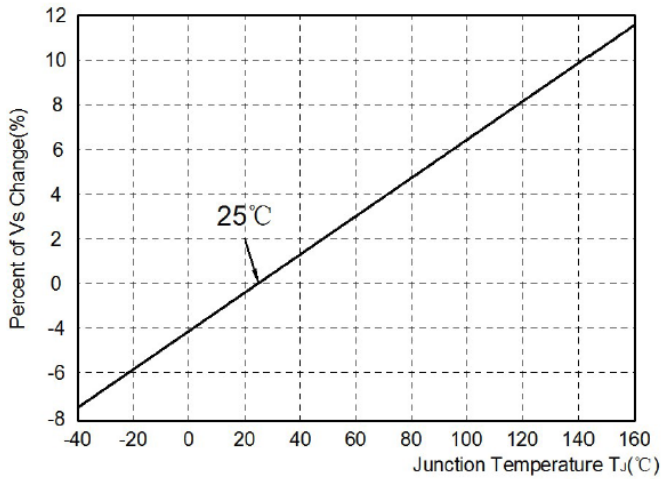


Fig 3. Normalized V_s change vs. junction temperature

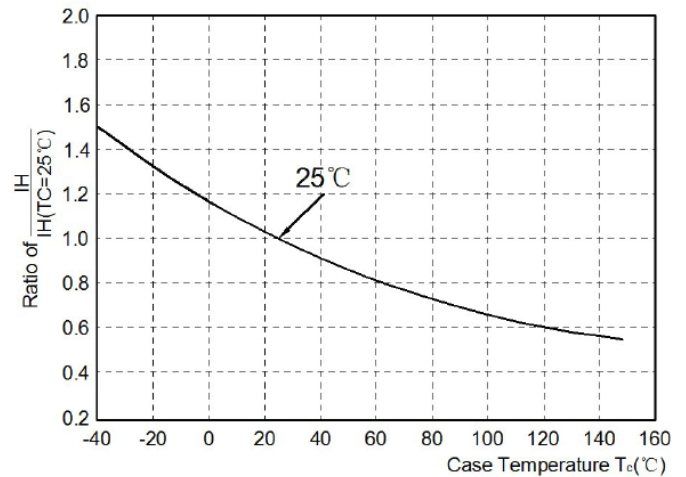


Fig 4. Normalized DC holding current vs. case temperature

Package mechanical data

Symbol	Millimeters		
	Min.	Max.	
A	4.22	4.70	
B	3.40	3.94	
C	1.90	2.10	
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	
I	2.20	--	
J	2.10	--	
K	--	2.74	
L	2.10	--	

Ordering information

Part Number	Package	Base qty	Reel Size	Delivery mode
		(pcs)	(inch)	
TSCxxxxSA Series	DO-214AA(SMB)	3,000	13	Tape and reel