

SURGiNG

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Thyristor Surge Suppressors

半导体放电管

DS9000SCS Series

Thyristor Surge Suppressor - DS9000SCS

1. Features

- Excellent capability of absorbing transient surge
- Quick response to surge voltage (nS Level)
- Eliminates overvoltage caused by fast rising transients
- Moisture sensitivity level: Level 1
- Non degenerative
- Bi-directional.

Pin Configuration



SMB (Top View)
90SCS: Part Number
2408: August, 2024

2. Applications Information

- Power/Ethernet

Circuit Diagram



3. Thermal Considerations

Symbol	Parameter	Value	Unit
T _J	Operating Junction Temperature Range	-40 to +150	°C
T _S	Storage Temperature Range	-55 to +150	°C

4. Part Number and Electrical Parameter

Absolute maximum ratings measured at T_A= 25°C RH = 45%-75% (unless otherwise noted).

Part Number	I _{DRM} @ V _{DRM}		V _S ^① @ I _S		V _T @ I _T		I _H	Co ^②
	μA	V	V	mA	V	A	mA	pF
	MAX		MAX		MAX		MIN	TYP.
DS9000SCS	5	850	1200	800	4	2.2	5	35

NOT:

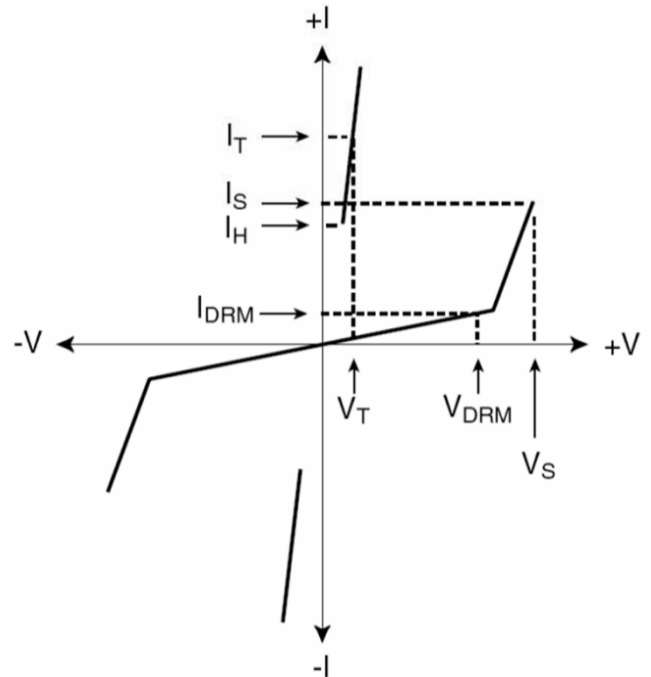
① V_S is measured at 100KV/S

② Off-state Capacitance is measured at V_{DC}=2V, V_{RMS}=1V, f=1MHz

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5. V-I Curve

Parameters	Definition
V_{DRM}	Peak Off-state Voltage
I_{DRM}	Off-state Current
V_S	Switching Voltage
I_S	Switching Current
I_H	Holding Current
V_T	On-state Voltage
I_T	On-state Current
C_o	Off-state Capacitance



6. Surge Ratings

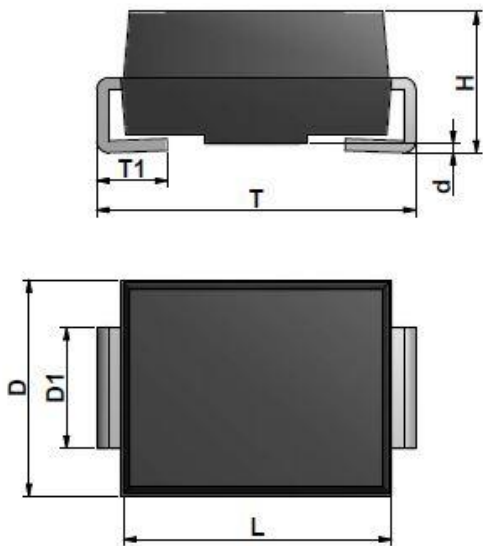
Current Waveform	8/20 μ s	5/320 μ s*
Voltage Waveform	1.2/50us	10/700 μ s*
Ipp	400A	150A

Peak pulse current rating (I_{PP}) is repetitive and guaranteed for the life of the product;

-DOIT only makes the test for 5/320 μ s@150A* (10/700 μ s@6KV), but for other IPP value derived from experience is just for reference only. DOIT will not take any obligation for these parameters, so before applying our parts, please make sure to verify the parameters listed in the above table.

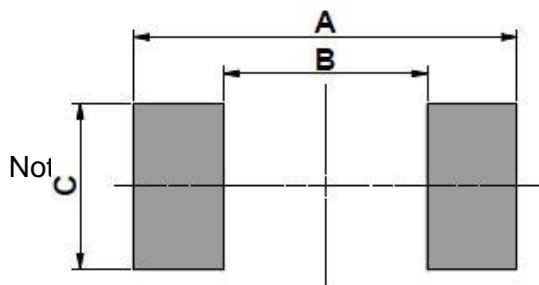
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7. Dimension (SMB)



REF.	mm	inch
D	3.6±0.3	0.142±0.012
D1	2±0.15	0.079±0.006
L	4.6±0.3	0.181±0.012
T	5.4±0.3	0.213±0.012
T1	1.1±0.3	0.043±0.012
d	0~0.4	0~0.016
H	2.10~2.60	0.083~0.102

Recommended Land Pattern



REF	mm	inch
A	5.45	0.215
B	2.45	0.096
C	2.15	0.085