

SURGiNG

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Thyristor Surge Suppressors

半导体放电管

DS17000CES Series

Thyristor Surge Suppressor - DS17000CES

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



SMC (Top View)
170CES: Part Number
2408: August, 2024

2. Applications

- Protect circuit

Circuit Diagram



3. _____

4. 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

5. 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		MAX	TYP.
DS17000CES	5	1700	2100	800	4	2.2	20	100

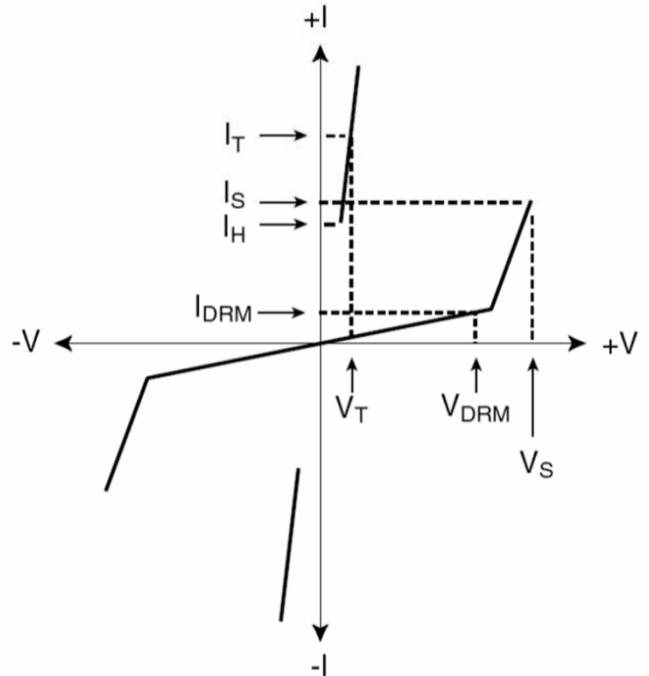
NOT:

- 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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6. 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



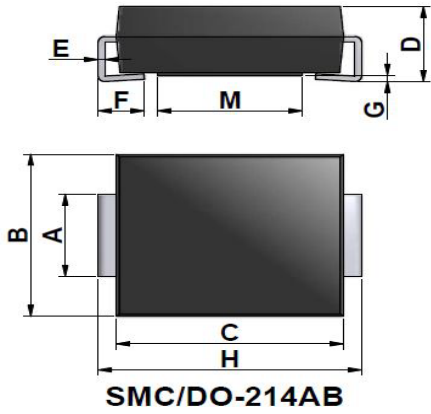
7. Surge Ratings

Current Waveform	8/20 μ s*
Voltage Waveform	1.2/50 μ s*
I_{pp}	500A

only makes the test for 8/20 μ s@500A* (1.2/50 μ s@6KV)

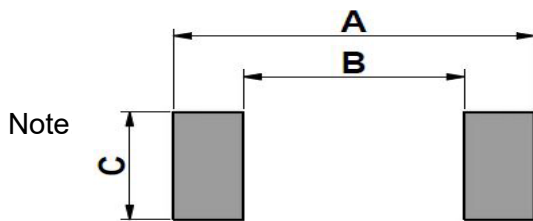
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8. Dimension (SMC)



REF	mm	inch
A	3±0.1	0.118±0.004
B	6±0.2	0.236±0.008
C	7±0.2	0.276±0.008
D	2.7±0.3	0.106±0.012
E	0.2±0.1	0.008±0.004
F	1.3±0.3	0.051±0.012
G	0~0.4	0.000~0.016
H	8±0.25	0.315±0.010
M	4.4±0.2	0.173±0.008

Recommended Land Pattern



REF	mm	inch
A	8.25	0.325
B	5.05	0.199
C	3.05	0.120