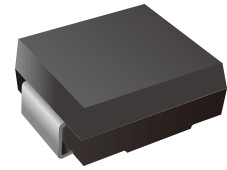




## Thyristor Surge Suppressor

### 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
- Lead free in comply with EU RoHS 2011/65/EU directives



### Mechanical Data

- Case: SMC
- Lead Material: Copper Alloy
- Terminal Finish: 100% Matte-Tin Plated

### Application

- AC Port
- RJ11

### Ordering Information

Part Number	Marking	Shipping	Reel
LTPC2600H-TR3	P26H	3000PCS Tape&Reel	13 inchs

### Environmental Characteristics

Testing Items	Technical Standards
High Temperature Reverse Bias Test	Temperature: 150±3°C, Bias=80%V <sub>DRM</sub> Time: 168H
High Temperature Life Test	Temperature: 150°C Time: 168H
High-low Temperature Cycle Test	Temperature: From -40°C to 150°C Dwell time: 30min, 100 cycles
High Temperature & High Humidity Test	Temperature: 85°C Humidity: 85% Test time: 168H
Pressure Cooker Test	Temperature: 121°C, 2atm. Humidity: 100% Test time: 96H
Resistance of Soldering Heat	Temperature: 260±5°C Time of dip soldering: 10s, 3times

## Part Number and Electrical Parameter

Part Number	$I_{DRM}@V_{DRM}$		$V_S @ I_S$		$V_T @ I_T$		$I_H$		$C_o$		
	$\mu A$	V	V	mA	V	A	mA	mA	pF		
	Max		Max		Max		Min	Max	Min	Typ	Max
LTPC2600H	5	220	300	800	4	2.2	5	50	160	185	220

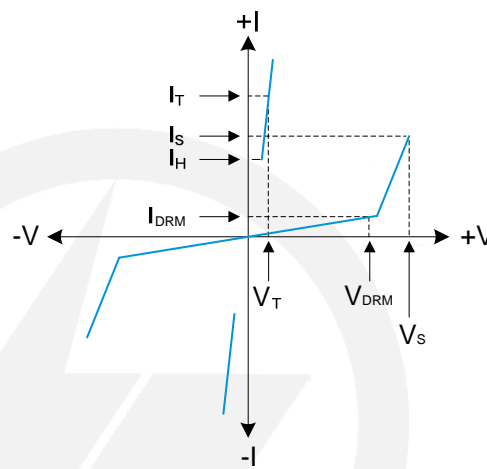
Absolute maximum ratings measured at  $T_A = 25^\circ C$  RH = 45%-75% (unless otherwise noted).

$V_S$  is measured at 100KV/S

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

## Electrical Parameters

Symbol	Parameter
$V_{DRM}$	Peak off-state voltage
$I_{DRM}$	Off-state current
$V_S$	Switching voltage
$I_S$	Switching current
$V_T$	On-state voltage
$I_T$	On-state current
$I_H$	Holding current
$C_o$	Off-state capacitance



## Surge Ratings

Current Waveform	Voltage Waveform	Ipp
8/20 $\mu s$	1.2/50 $\mu s$	Min : 1500A
di/dt	/	Min : 1500A/ $\mu s$

## Thermal Considerations

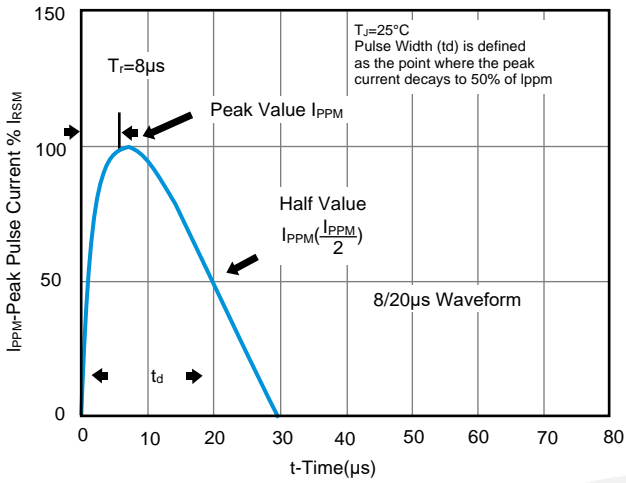
Symbol	Parameter	Value	Unit
$T_J$	Operating Junction Temperature Range	-40 to +150	
$T_S$	Storage Temperature Range	-60 to +150	
$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	90	/W

## Product Characteristics

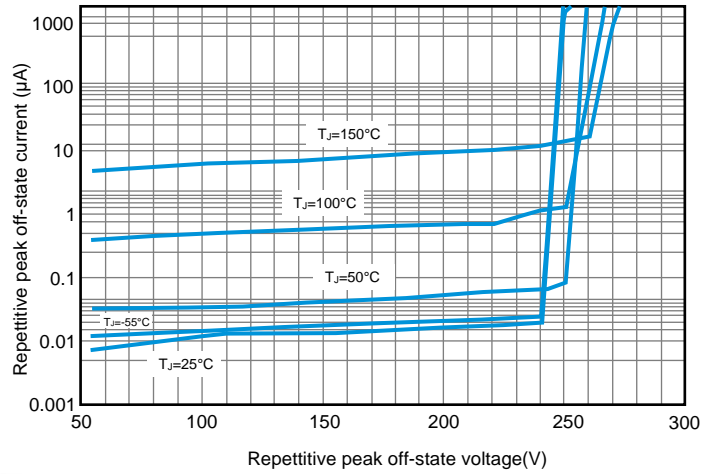
Lead Material	Terminal Finish
Copper Alloy	100% Matte-Tin Plated

**Characteristics Curves**

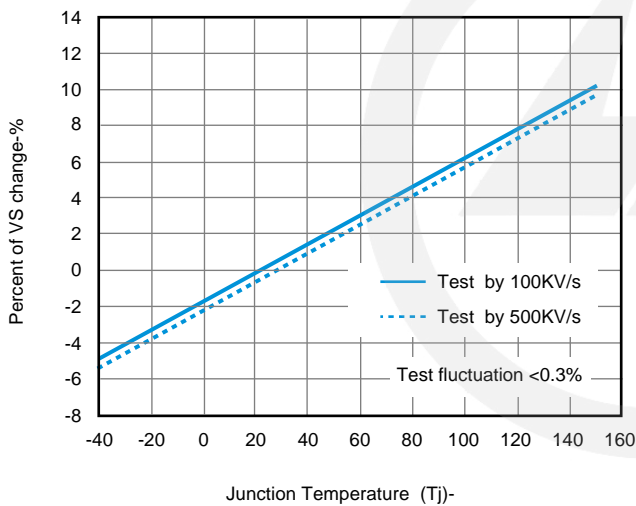
**Fig.1 Pulse Wavaform**



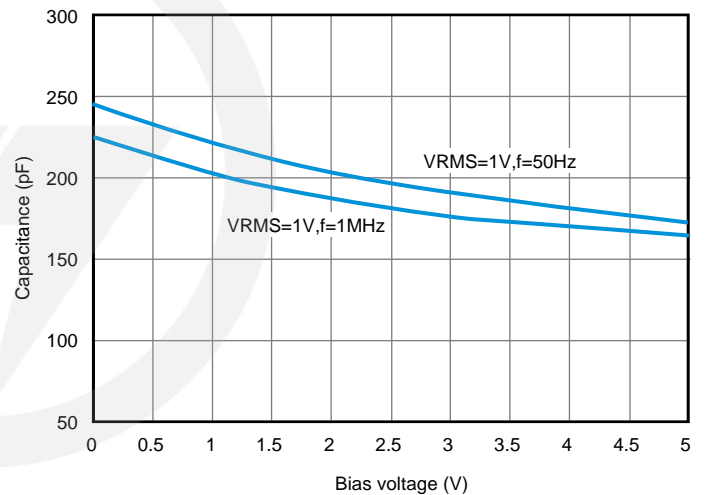
**Fig.2 Repetitive peak off-state current VS Repetitive peak off-state voltage**



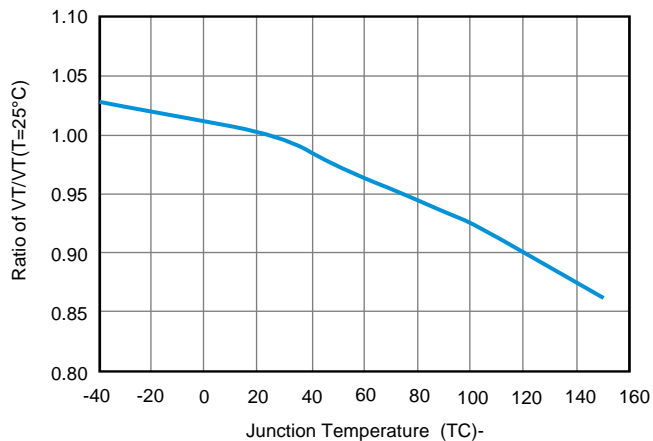
**Fig.3 VS change vs Junction Temperature**



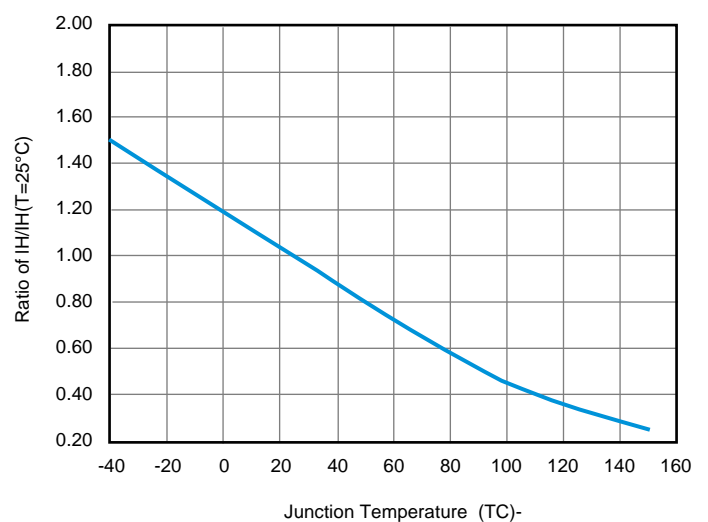
**Fig.4 Capacitance vs Bias voltage**



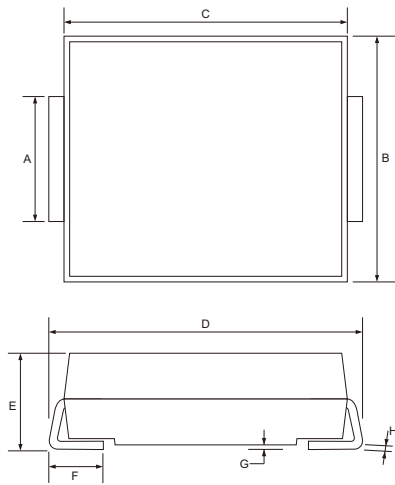
**Fig.5 On-state Voltage vs Junction Temperature**



**Fig.6 Holding current vs Junction Temperature**



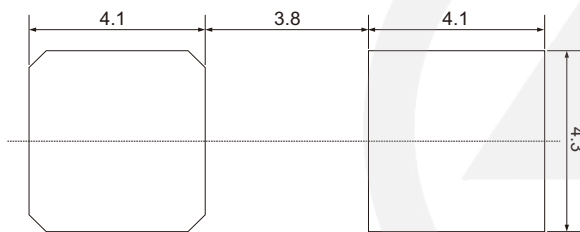
**SMC Package Outline**



Unit: mm

SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	2.75	3.27
B	5.59	6.22
C	6.50	7.11
D	7.60	8.13
E	1.99	2.80
F	0.76	1.60
G	0.05	0.31
H	0.10	0.31

**SMC Suggested Pad Layout**

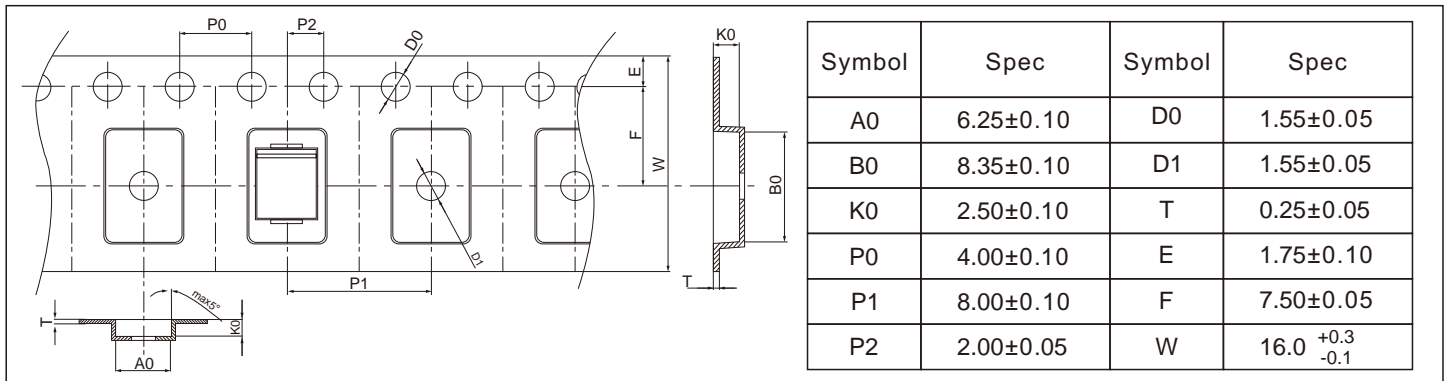


Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$
3. The pad layout is for reference purpose only.

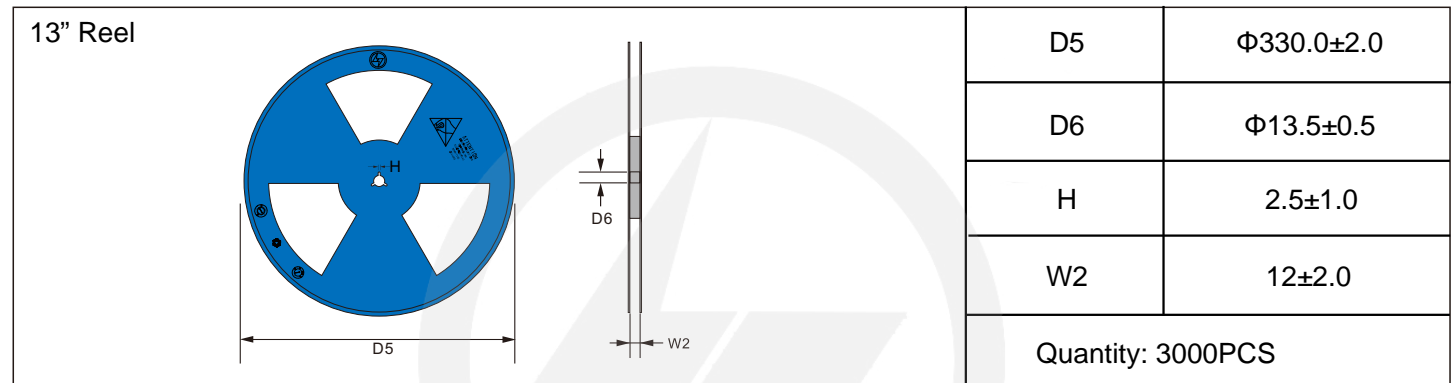
## Carrier Tape Dimensions

Unit : mm

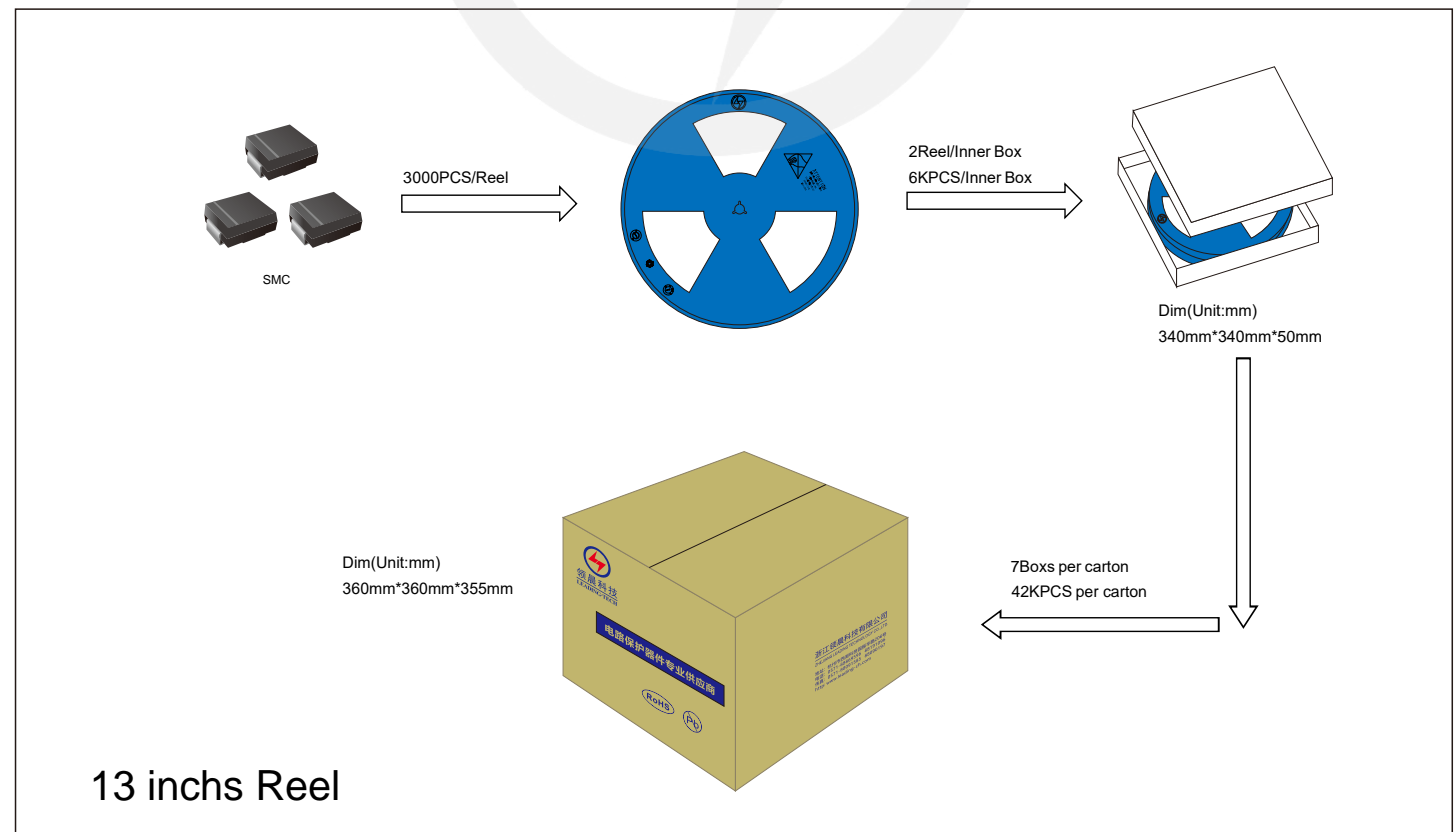


## Reel Dimensions

Unit : mm

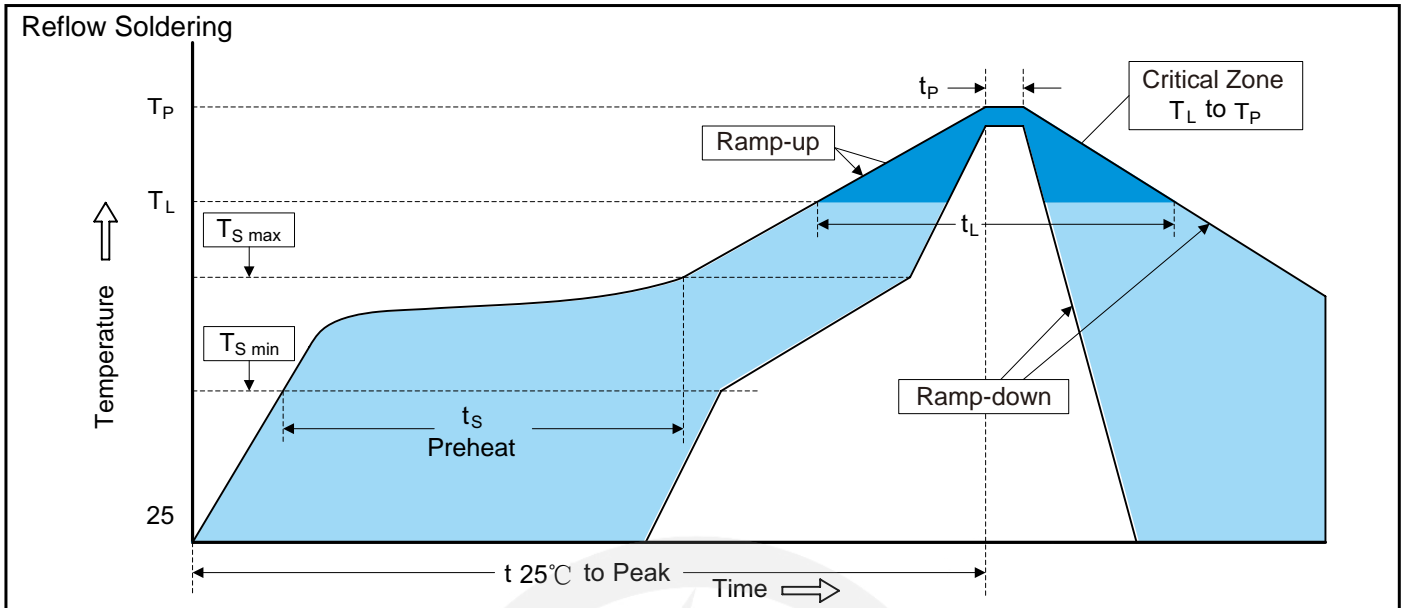


## Packaging





Recommended Soldering Conditions



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T <sub>L</sub> to T <sub>P</sub> )	3°C/second max.
Preheat	
-Temperature Min (T <sub>S min</sub> )	150°C
-Temperature Max (T <sub>S max</sub> )	200°C
-Time (min to max) (t <sub>s</sub> )	60-180 seconds
T <sub>S max</sub> to T <sub>L</sub>	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (T <sub>L</sub> )	217°C
-Time (t <sub>L</sub> )	60-150 seconds
Peak Temperature (T <sub>P</sub> )	260°C
Time within 5°C of actual Peak Temperature (t <sub>p</sub> )	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

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## Version Update Information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision content	Revision Reason	Revision Person	Note
01	2025.03.15	2025.03.15	3.0	New File	/	Ding	