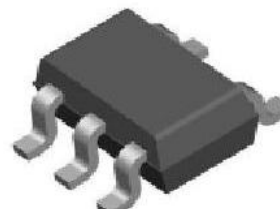


## Ultra-low Capacitance Thyristor Surge Protector

### Features

- Compatible with VDSL2、ADSL2
- Low Capacitance and Leakage Current
- Balanced overvoltage protection
- Low Clamping Voltage
- Flow-through design
- Low insertion loss

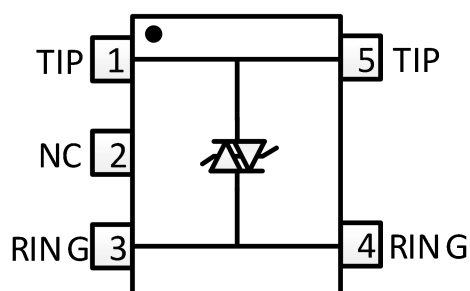


SOT23-5

### Standards Compatibility

- GR 1089 Intra-building
- IEC 61000-4-2
- IEC 61000-4-5
- ITU K.20/21/45 Basic Level
- IITU K.20/21/45 Enhanced Level

### Schematic&PIN Configuration



### Main Application

The Ultra-low Capacitance series provides overvoltage protection for applications such as VDSL2, ADSL2, and ADSL2+ with minimal effect on data signals. The device is also bi-directional between pin1 to pin3. All electrical parameters and surge ratings apply to forward and reverse polarities.

### Maximum Surge Ratings( between pin1 and pin 3, T<sub>A</sub>=25°C)

Parameter	Symbol	Value	Unit
Non-repetitive impulse current 8/20* & 1.2/50** (IEC 61000-4-5)	I <sub>PP</sub>	70	A
Non-repetitive impulse current 5/310* & 10/700** (IEC 61000-4-5)	I <sub>PP</sub>	20	A

Notes: \*Current waveform in  $\mu$ s, \*\*Voltage waveform in  $\mu$ s.

### Electrical Characteristics (between pin 1 and pin 3, T<sub>A</sub> = 25°C)

Part Number	V <sub>DRM</sub>	I <sub>DRM@V<sub>DRM</sub></sub>	V <sub>s</sub>	I <sub>H</sub>	V <sub>T</sub> @I <sub>T</sub> =1.0A	C <sub>o</sub> @f=1MHz, 2V	
	V	$\mu$ A	V	mA	V	pF	pF
	Max.	Max.	Max.	Typ.	Max.	Typ.	Max.
WEOS5-012P5	12	1	20	55	4.0	9.0	9.5

**V<sub>DRM</sub>**: Stand-off voltage, is measured at 1mA.

**I<sub>H</sub>**: Holding current.

**I<sub>DRM</sub>**: Leakage current at V<sub>DRM</sub>.

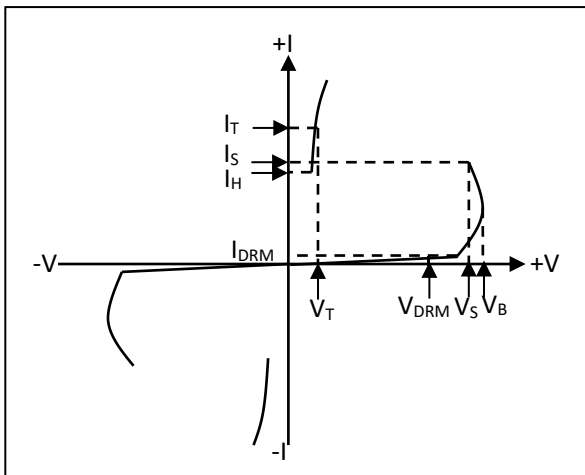
**C<sub>o</sub>**: Off-state capacitance.

**V<sub>s</sub>**: Breakdown voltage, is measured at 100V/μs.

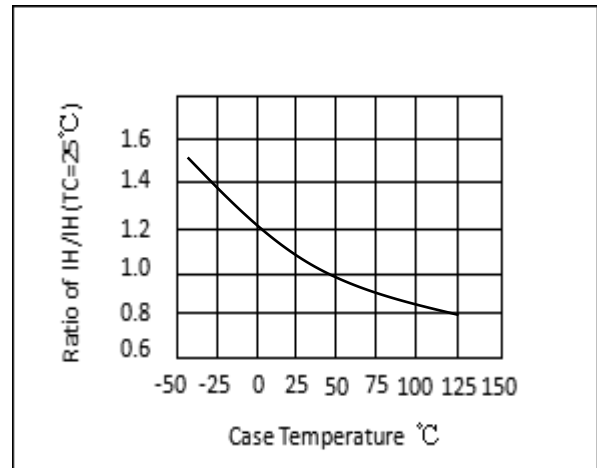
### Thermal Information

Symbol	Parameter	Value	Unit
T <sub>s</sub>	Storage temperature range	-55 to +150	°C
T <sub>J</sub>	Junction temperature range	-40 to +125	°C

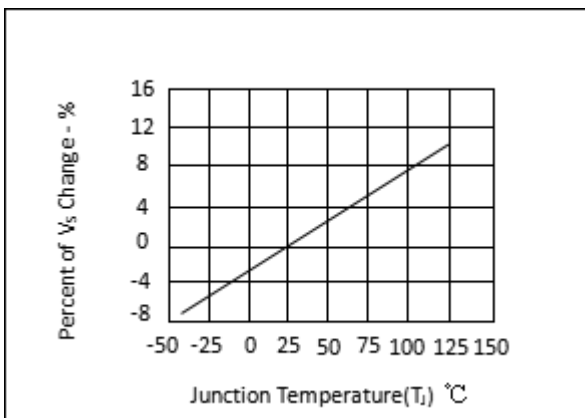
### Electrical Characteristics Curves



V-I Characteristics



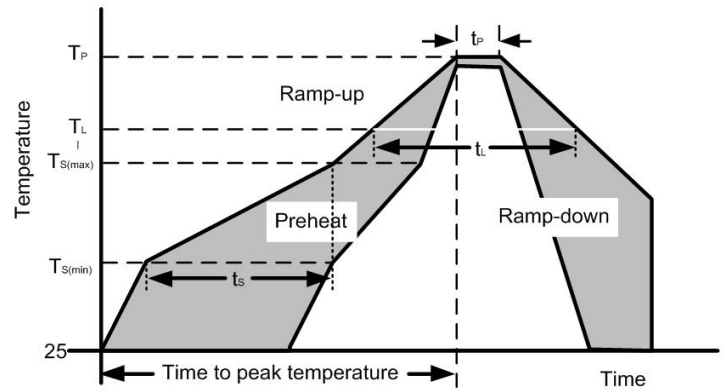
Normalized Holding Current vs. Case Temperature



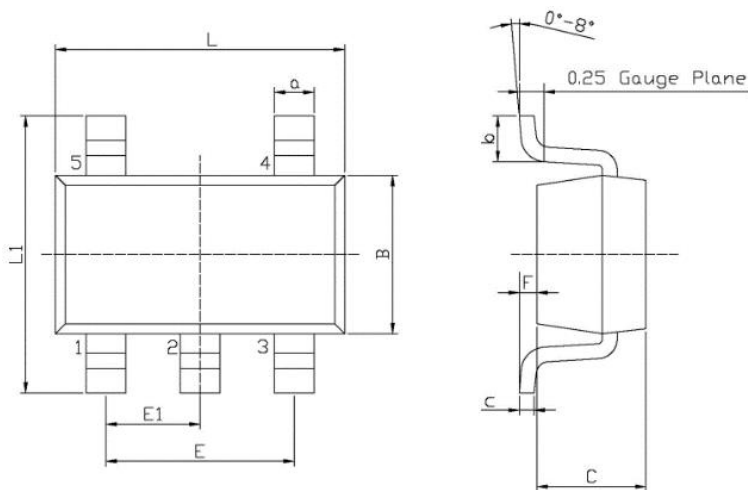
Normalized V<sub>s</sub> Change vs. Junction Temperature

### Soldering Parameters

Reflow Condition		
Pre Heat	Temperature Min ( $T_{s(min)}$ )	150°C
	Temperature Max ( $T_{s(max)}$ )	200°C
	Time (min to max) ( $t_s$ )	60-190 s
Average ramp up rate (Liquidus Temp) ( $T_L$ ) to peak		3°C/s max
Ts(max) to TL - Ramp-up Rate		3°C/s max
Reflow	Temperature ( $T_L$ ) (Liquidus)	217°C
	Temperature ( $t_L$ )	60-150 s
Peak Temperature ( $T_P$ )		260 <sup>+0/-5</sup> °C
Time within actual peak Temperature ( $t_p$ )		20-40 s
Ramp-down Rate		5°C/s max
Time 25°C to peak Temperature ( $T_P$ )		8 minutes Max.
Do not exceed		260°C



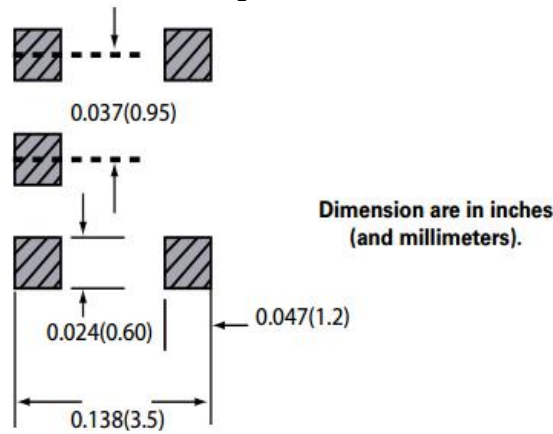
### Product Dimensions



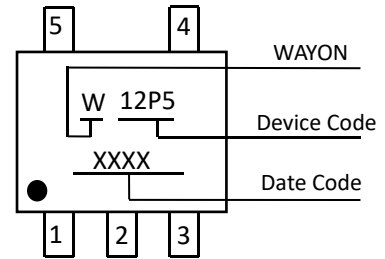
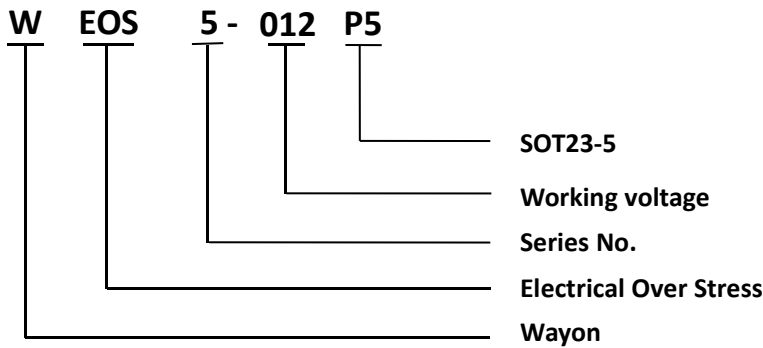
Unit: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.82	3.02	E1	0.85	1.05
B	1.50	1.70	a	0.35	0.50
C	0.90	1.30	c	0.10	0.20
L1	2.60	3.00	b	0.35	0.55
E	1.80	2.00	F	0	0.15

### Recommended Solder Pad Layout



### Part Numbering System and Marking



### Package Information

Package Type	Description	Quantity (pcs)
SOT23-5	Tape & Reel Pack	3000

### Contact Information

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*Specifications are subject to change without notice.  
 The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.  
 Users should verify actual device performance in their specific applications.*

单击下面可查看定价，库存，交付和生命周期等信息

[>>WAY-ON\(维安\)](#)