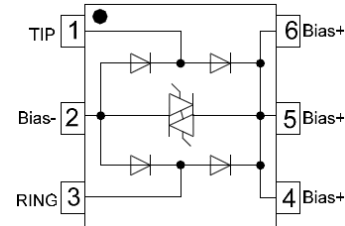


Features

- I Compatible with VDSL2、ADSL2
- I Low capacitance and leakage current
- I Balanced overvoltage protection
- I Low clamping voltage
- I Response time under 500ns
- I Low insertion loss
- I Low distortion



Electrical symbol



Mechanical Characteristics

- I SOT23-6 package
- I Molding compound flammability rating: UL 94V-0
- I Quantity per reel: 3, 000pcs
- I Lead finish: lead free

Description

The integrated thyristor series provide overvoltage protection for applications such as VDSL2, ADSL2, and ADSL2+ with minimal effect on data signals. This silicon design innovation results in a capacitive loading characteristic that is compatible with these high bandwidth applications. The devices is also bi-directional between pin1 to pin3. All electrical parameters and surge ratings apply to forward and reverse polarities. This surface mount SOT23-6 package provides a surge capability that exceeds most worldwide standards and recommendations for lightning surge withstand capability of tertiary protectors.

Absolute Maximum Rating

Rating	Symbol	Value	Units
Non-repetitive impulse current on 8/20µs waveform	I_{PP}	35	A
ESD Voltage (Contact)	V_{ESD}	±8	kV
ESD Voltage (Air)	V_{ESD}	±15	kV
Lead Soldering Temperature	T_L	260 (10 sec.)	°C
Operating Temperature	T_J	-40 to 150	°C
Storage Temperature	T_{STG}	-65 to 150	°C

Electrical Characteristics

Type Number	Min. Stand-off voltage	Max. Off-state current	Switching voltage	Min. Switching current	Holding current	On-state voltage		Max. Clamping voltage @8/20µs	Typical Off-state capacitance
	V_{DRM}	I_{DRM}	V_s @100KV/s	I_s	I_H	V_T @ $I_T=1A$	V_C @ $I_{PP}=35A$	C_o @ $f=10MHz, 2V$	
	V	µA	V	mA	mA	V	(V) pin 5 to pin2	V	pF
RLST236P24L	24	1	30	10	40	3.5	1	35	1.1

Notes: All measurements made between pin 1 and pin 3 unless otherwise stated.



Characteristics Curves

FIG.1: V- I curve characteristics

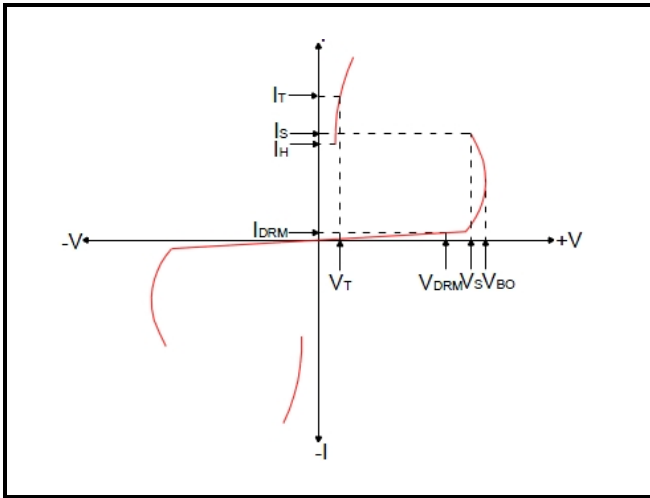


FIG.2: Typical capacitance against line voltage

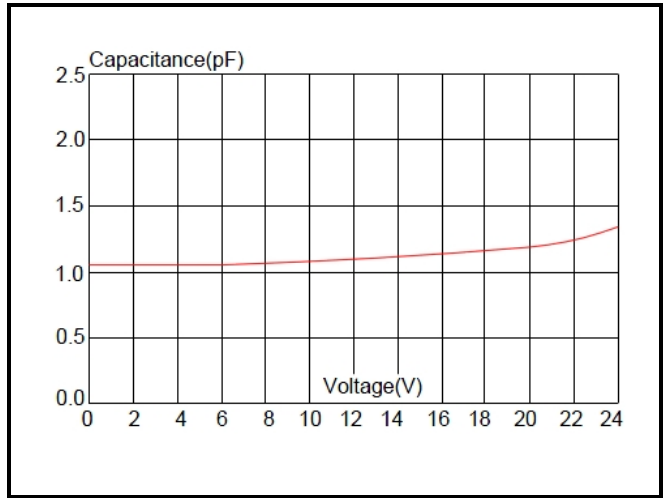


FIG.3: Normalized V_S change vs. junction temperature

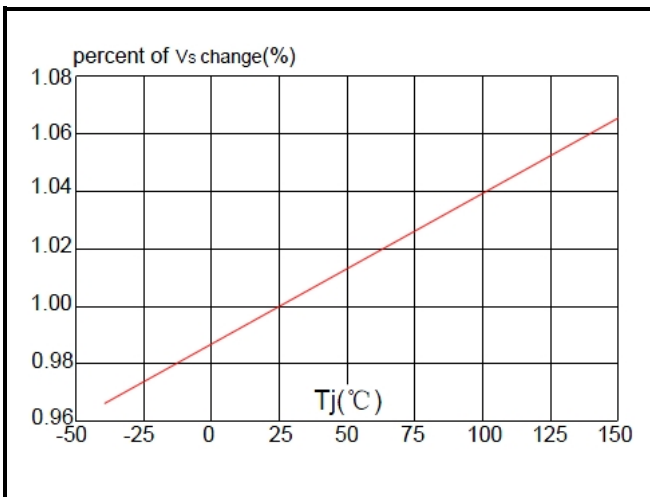
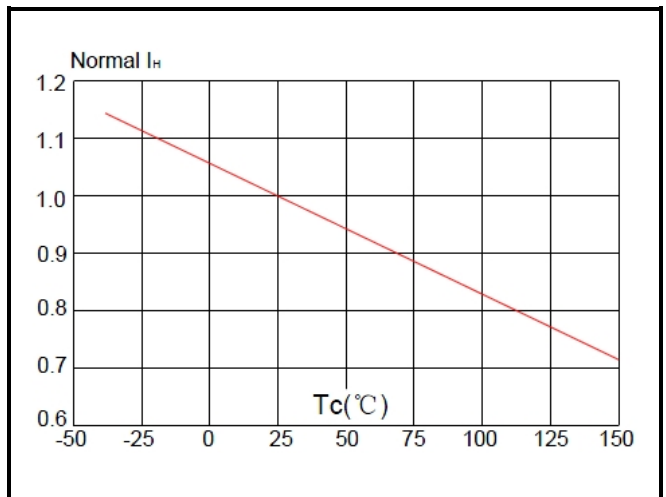
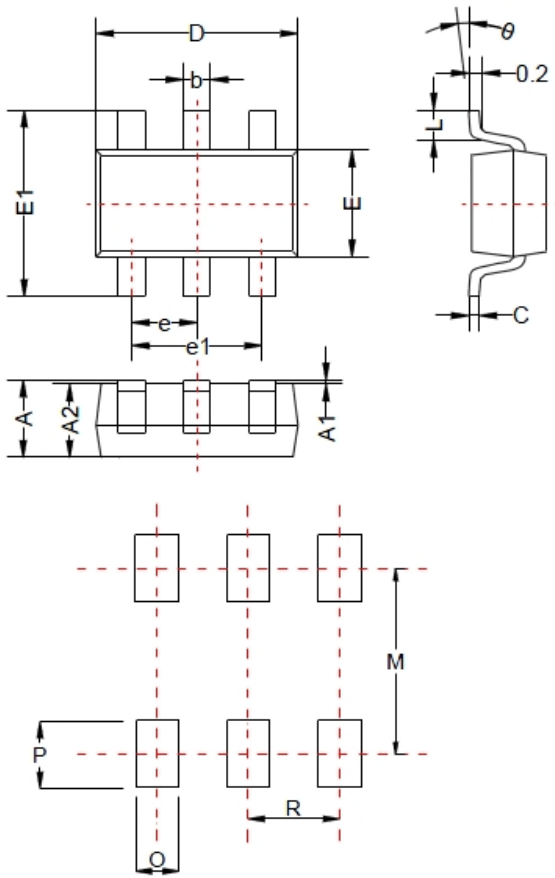


FIG.4: Normalized holding current vs. case temperature



Dimensions

PACKAGE MECHANICAL DATA



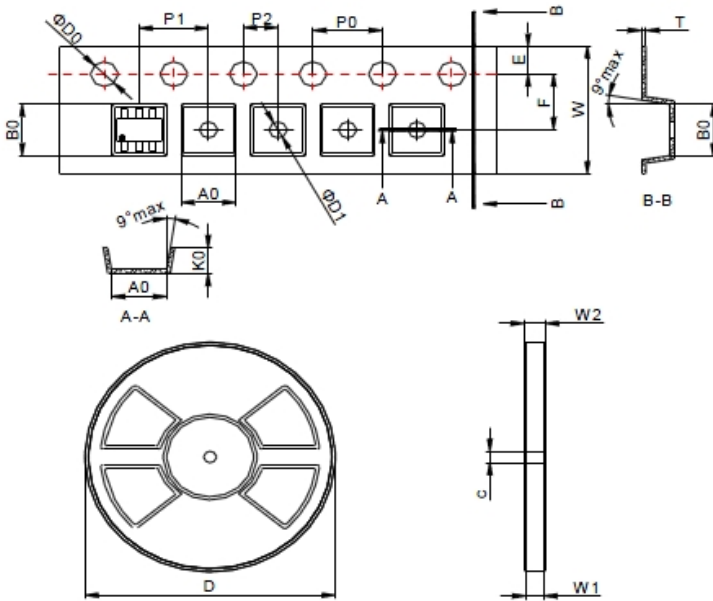
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	1.05	1.25	0.041	0.049
A1	0.00	0.10	0.000	0.004
A2	1.05	1.15	0.041	0.045
b	0.30	0.50	0.012	0.020
c	0.10	0.20	0.004	0.008
D	2.85	3.05	0.112	0.120
E	1.50	1.70	0.059	0.067
E1	2.65	2.95	0.104	0.116
e	0.95(BSC)		0.037(BSC)	
e1	1.80	2.00	0.071	0.079
L	0.30	0.60	0.012	0.024
θ	0°	8°	0°	8°
M	-	2.59	-	0.102
O	-	0.69	-	0.027
P	-	0.99	-	0.039
R	-	0.95	-	0.038

Recommended solder pad layout

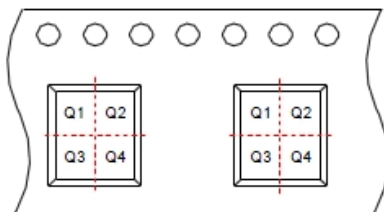


Taping and Reel Specifications

TAPE AND REEL SPECIFICATION-SOT23-6



Symbol	Millimeters	Inches
W	8.0 ^{+0.30} _{-0.10}	0.315 ^{+0.012} _{-0.004}
P1	4.0±0.10	0.157±0.004
E	1.75±0.1	0.069±0.004
F	3.5±0.05	0.138±0.002
D0	Φ1.55±0.05	Φ0.061±0.002
D1	Φ1.0 ^{+0.25} _{-0.00}	Φ0.039 ^{+0.010} _{-0.000}
P0	4.0±0.10	0.157±0.004
P2	2.0±0.05	0.079±0.002
A0	3.17±0.10	0.125±0.004
B0	3.23±0.10	0.127±0.004
K0	1.37±0.10	0.054±0.004
T	0.25±0.02	0.010±0.001
D	177.8	7.00
W1	10.4±2.0	0.409±0.079
W2	16.2±1.8	0.638±0.071
c	13.25±0.25	0.522±0.010



➔ User direction of feed

Pin 1 quadrant:Q3

