

# SMD ESD Protection Diode

**Comchip**  
SMD Diode Specialist

## CPDT6-5V4-HF

**RoHS Device**  
**Halogen Free**

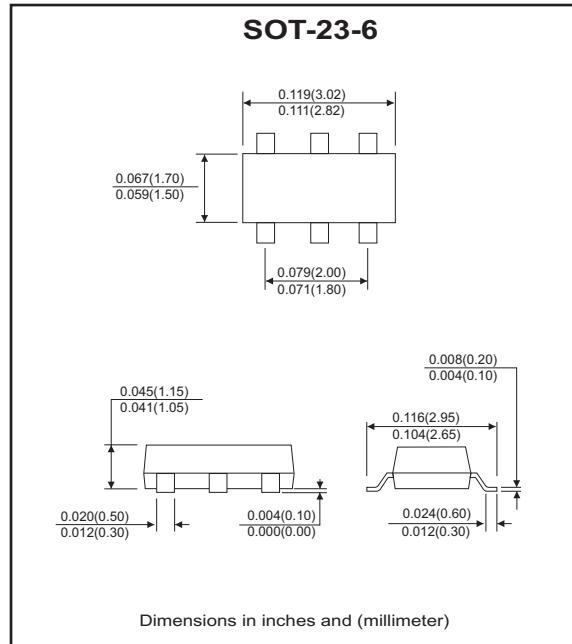


### Features

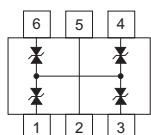
- Common anode ESD protection.
- IEC61000-4-2 Level 4 ESD protection.
- Low operating voltage: < 5V.
- Fast turn-on and low clamping voltage.

### Mechanical data

- Case: SOT-23-6 Standard package, molded plastic.
- Terminals: Tin plated, solderable per MIL-STD-750, method 2026.
- Marking code:E5V4
- Mounting position: Any.
- Weight: 0.015 gram(approx.).



### Circuit diagram



### Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Diode breakdown voltage	IR = 1mA	V <sub>BD</sub>	5.1	7.0		V
Leakage current	V <sub>R</sub> = 5V	I <sub>L</sub>		0.1	2.0	uA
Junction capacitance	V <sub>R</sub> =0V,f =1MHz	C <sub>T</sub>		15	20	pF
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD			16 8	kV
Clamping voltage	I <sub>PP</sub> = 5A,T <sub>P</sub> =8/20us	V <sub>c</sub>			15	V
Peak pulse power	T <sub>P</sub> =8/20us	P <sub>PP</sub>			75	W
Operation temperature		T <sub>j</sub>	-40		125	°C
Storage temperature		T <sub>STG</sub>	-55		150	°C

## RATING AND CHARACTERISTIC CURVES (CPDT6-5V4-HF)

Fig. 1 - 8/20us Peak pulse current wave form acc. IEC 61000-4-5

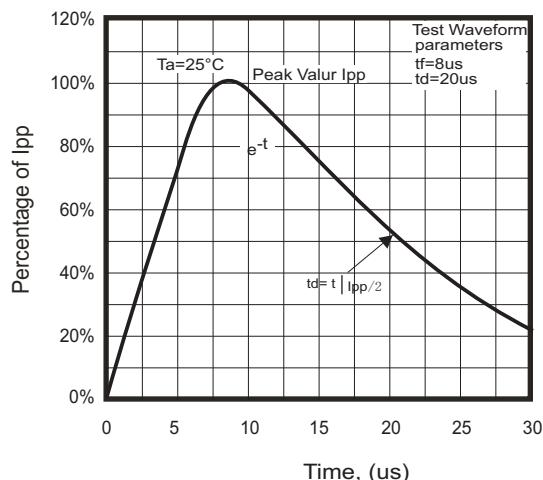


Fig. 2 - Reverse characteristics

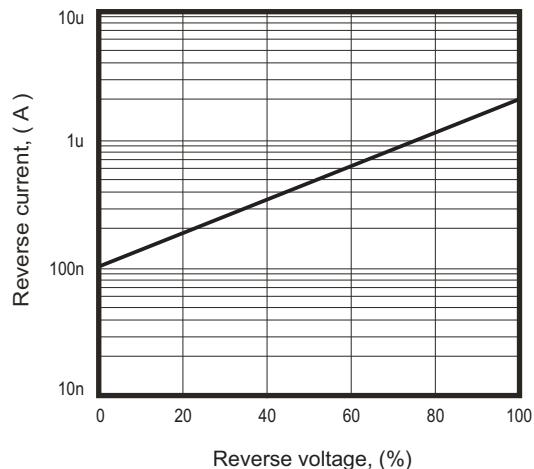


Fig.3 - Capacitance between terminals characteristics

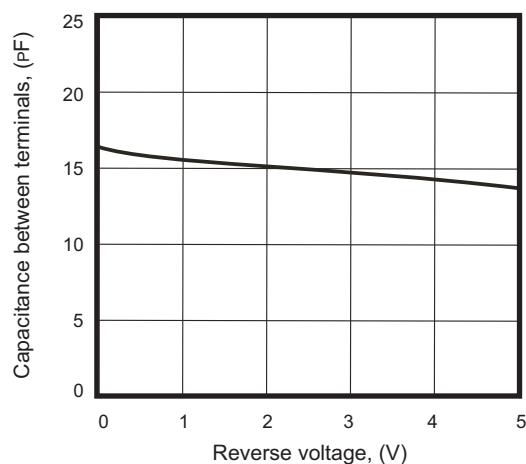
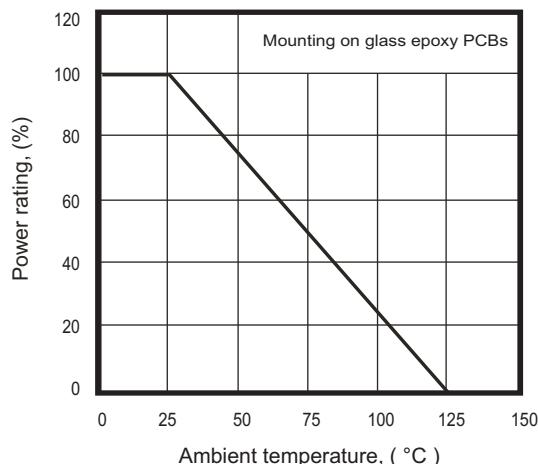
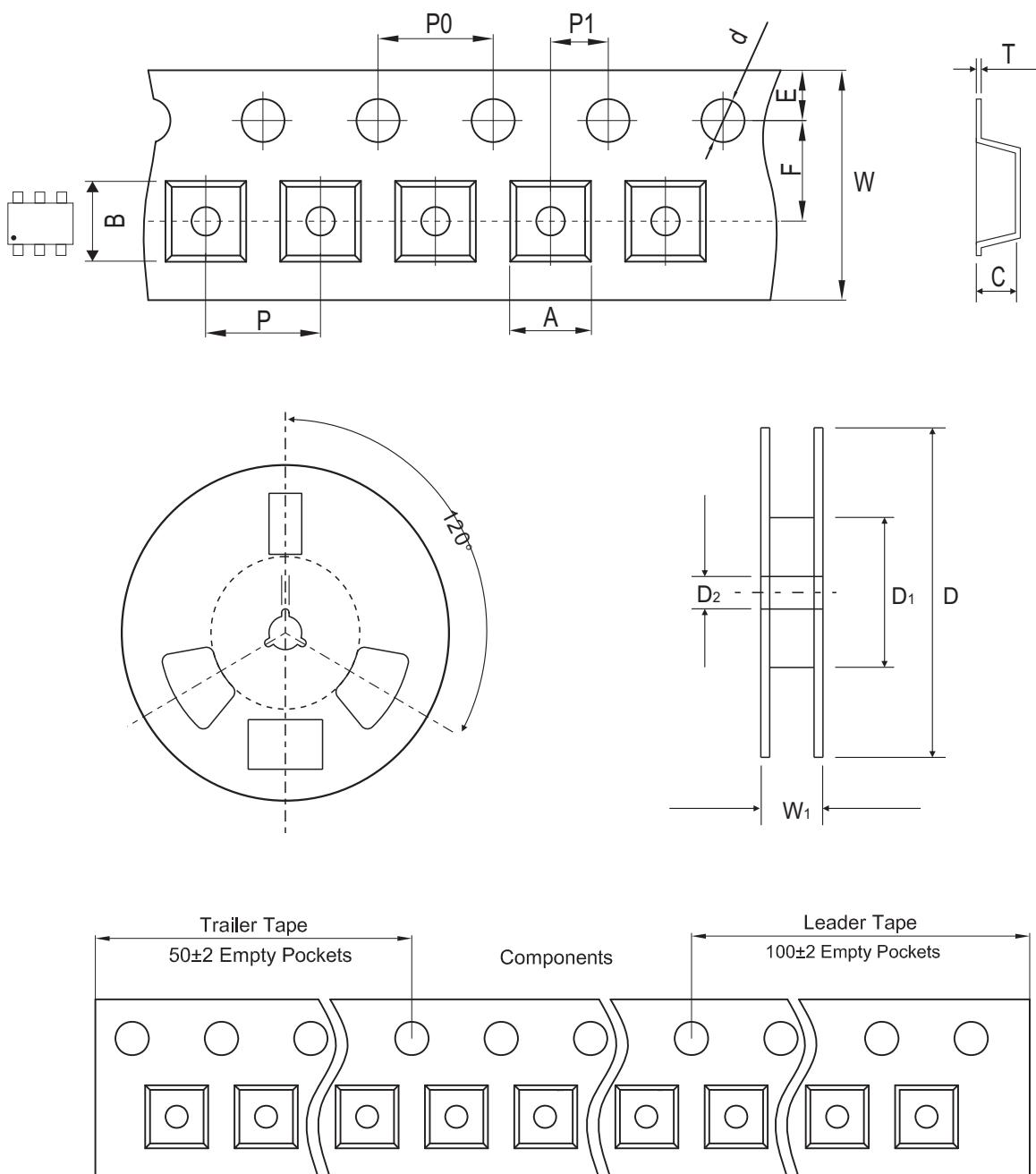


Fig.4 - Power rating derating curve



## Reel Taping Specification

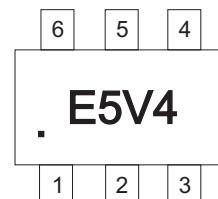


	SYMBOL	A	B	C	d	D	D1	D2
SOT-23-6	(mm)	$3.17 \pm 0.10$	$3.23 \pm 0.10$	$1.37 \pm 0.10$	$1.50 \pm 0.05$	$180.0 + 0.00 / - 0.30$	$60.00 \pm 0.50$	$13.00 \pm 0.20$
	(inch)	$0.125 \pm 0.004$	$0.127 \pm 0.004$	$0.054 \pm 0.004$	$0.059 \pm 0.002$	$7.087 + 0.00 / - 0.012$	$2.362 \pm 0.020$	$0.512 \pm 0.008$

	SYMBOL	E	F	P	P0	P1	W	W1
SOT-23-6	(mm)	$1.75 \pm 0.10$	$3.50 \pm 0.05$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.05$	$8.00 + 0.30 / - 0.10$	$12.30 \pm 0.20$
	(inch)	$0.069 \pm 0.004$	$0.138 \pm 0.002$	$0.157 \pm 0.004$	$0.157 \pm 0.004$	$0.079 \pm 0.002$	$0.315 + 0.012 / - 0.004$	$0.484 \pm 0.008$

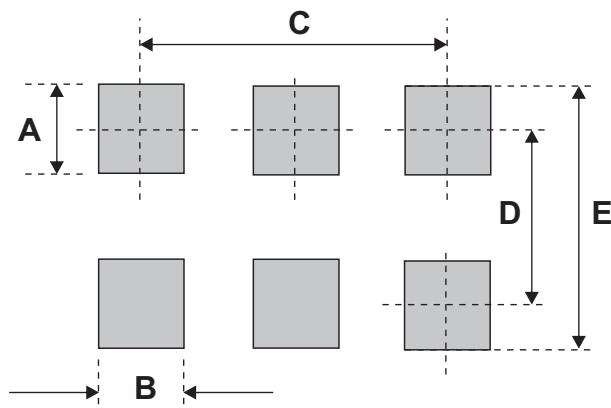
## Marking Code

Part Number	Marking Code
CPDT6-5V4-HF	E5V4



## Suggested PAD Layout

SIZE	SOT-23-6	
	(mm)	(inch)
A	1.10	0.043
B	0.60	0.024
C	1.90	0.075
D	2.50	0.098
E	3.60	0.142



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOT-23-6	3,000	7

# X-ON Electronics

Largest Supplier of Electrical and Electronic Components

***Click to view similar products for ESD Suppressors / TVS Diodes category:***

***Click to view products by Comchip manufacturer:***

Other Similar products are found below :

[60KS200C](#) [D12V0H1U2WS-7](#) [D18V0L1B2LP-7B](#) [82356050220](#) [D5V0M5U6V-7](#) [NTE4902](#) [P4KE27CA](#) [P6KE11CA](#) [P6KE39CA-TP](#)  
[P6KE8.2A](#) [SA110CA](#) [SA60CA](#) [SA64CA](#) [SMBJ12CATR](#) [SMBJ8.0A](#) [SMLJ30CA-TP](#) [ESD101-B1-02ELS](#) [E6327](#) [ESD112-B1-02EL](#) [E6327](#)  
[ESD119B1W01005E6327XTSA1](#) [ESD5V0L1B02VH6327XTSA1](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-HF](#) [3.0SMCJ33CA-F](#)  
[3.0SMCJ36A-F](#) [HSPC16701B02TP](#) [D3V3Q1B2DLP3-7](#) [D55V0M1B2WS-7](#) [DESD5V0U1BL-7B](#) [DRTR5V0U4SL-7](#) [SCM1293A-04SO](#)  
[ESD200-B1-CSP0201](#) [E6327](#) [ESD203-B1-02EL](#) [E6327](#) [SM12-7](#) [SMF8.0A-TP](#) [SMLJ45CA-TP](#) [CEN955 W/DATA](#) [82350120560](#)  
[82356240030](#) [VESD12A1A-HD1-GS08](#) [CPDUR5V0R-HF](#) [CPDUR24V-HF](#) [CPDQC5V0U-HF](#) [CPDQC5V0USP-HF](#) [CPDQC5V0-HF](#)  
[D1213A-01LP4-7B](#) [D1213A-02WL-7](#) [ESDLIN1524BJ-HQ](#) [5KP100A](#) [5KP15A](#)