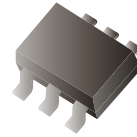


CPDV6-5V0UP-HF

RoHS Device
Halogen Free



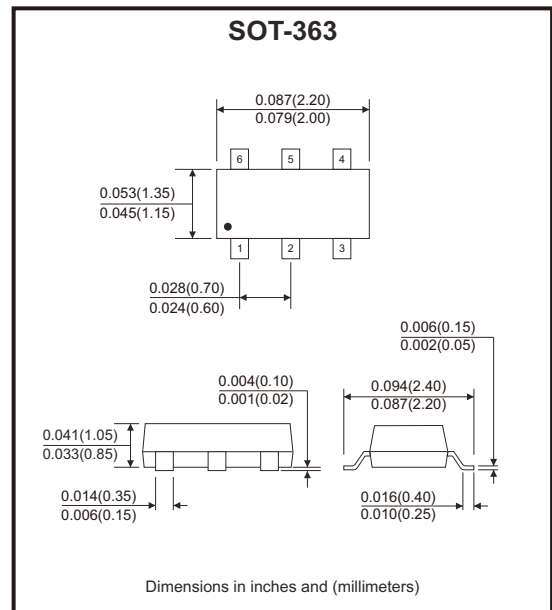
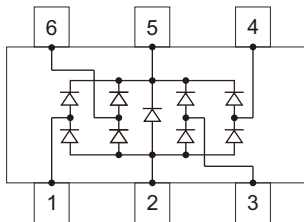
Features

- ESD/ transient protection of high speed data lines
IEC 61000-4-2 (ESD): ± 20 kV(air), ± 15 kV(contact)
IEC 61000-4-4 (EFT): ± 40 A(5/50ns)
- Protection for four high-speed I/O lines.

Mechanical data

- Case: SOT-363, molded plastic.
- Mounting position: Any.

Circuit Diagram



Maximum Rating (at TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power (tp = 8/20μs)	P _{PP}	65	W
Peak pulse current (tp = 8/20μs)	I _{PP}	5	A
IEC 61000-4-2; ESD (air)	V _{ESD-A}	±20	kV
IEC 61000-4-2; ESD (contact)	V _{ESD-C}	±15	kV
junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		V_{RWM}			5	V
Reverse breakdown voltage	$I_R = 1mA$	$V_{(BR)}$	6			V
Clamping voltage (I/O pin to GND)	$I_{PP} = 1A, t_p = 8/20\mu s$	V_C			9	V
	$I_{PP} = 5A, t_p = 8/20\mu s$	V_C			13	V
Reverse leakage current	$V_{RWM} = 5V$	I_R			1	μA
Junction capacitance (I/O pin to I/O)	$V_R = 0V, f = 1MHz$	C_J		0.3	0.4	pF
Junction capacitance (I/O pin to GND)	$V_R = 0V, f = 1MHz$	C_J		0.6	0.8	pF

Typical Rating and Characteristic Curves (CPDV6-5V0UP-HF)

Fig.1 - Power Derating Curve

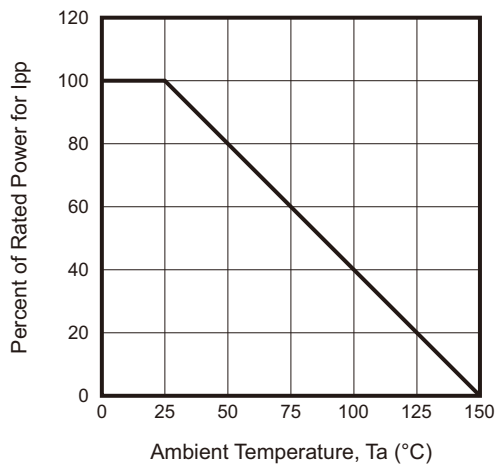


Fig.2 - Clamping Voltage vs. Peak Pulse Current

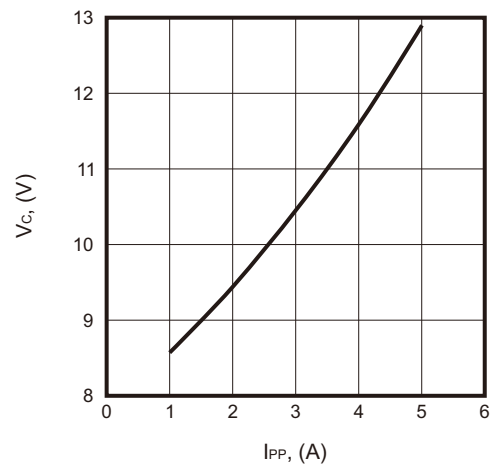


Fig.3 - 8/20μs Waveform per IEC 61000-4-5

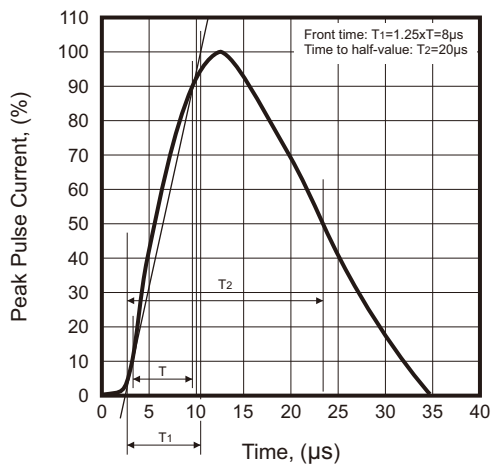
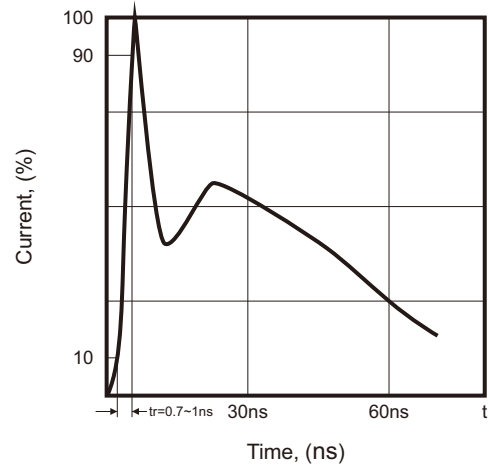
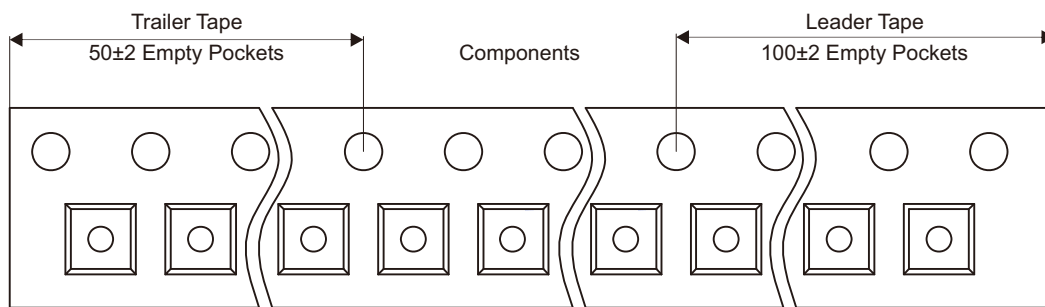
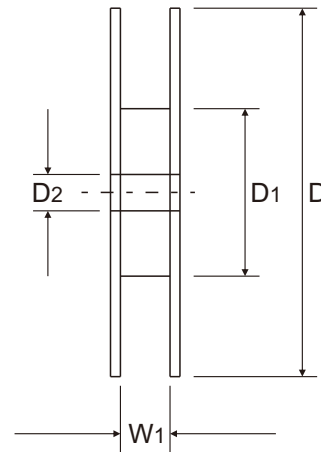
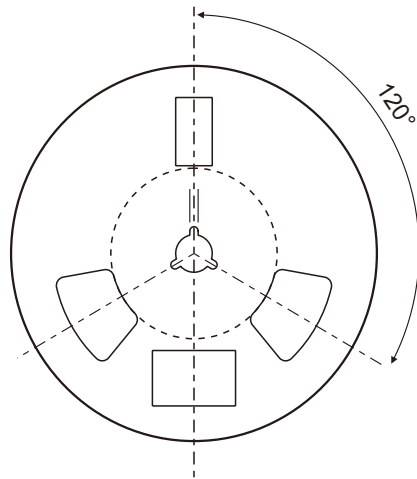
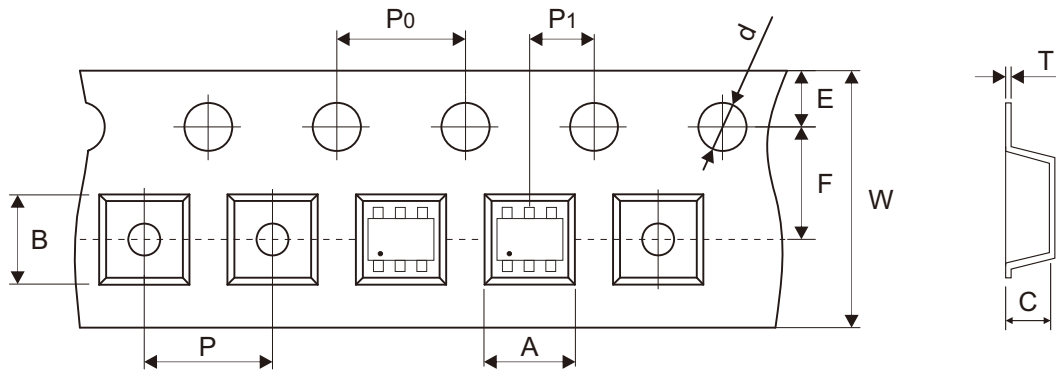


Fig.4 - ESD Pulse Waveform According to IEC 61000-4-2



Reel Taping Specification

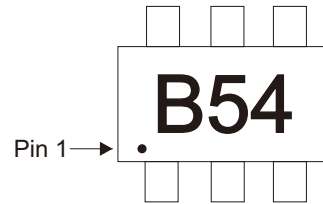


SOT-363	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.40 ± 0.10	2.50 ± 0.10	1.20 ± 0.10	1.50 ± 0.10	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.094 ± 0.004	0.098 ± 0.004	0.047 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

SOT-363	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.02	8.00 + 0.30 - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.001	0.315 + 0.012 - 0.004	0.374 ± 0.039

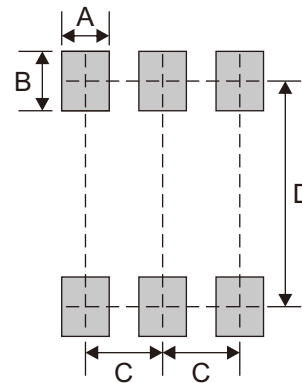
Marking Code

Part Number	Marking Code
CPDV6-5V0UP-HF	B54



Suggested P.C.B. PAD Layout

SIZE	SOT-363	
	(mm)	(inch)
A	0.40	0.016
B	0.50	0.020
C	0.65	0.026
D	1.90	0.075



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-363	3,000	7