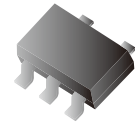


CPDV5-3V3UP-HF

RoHS Device
Halogen Free



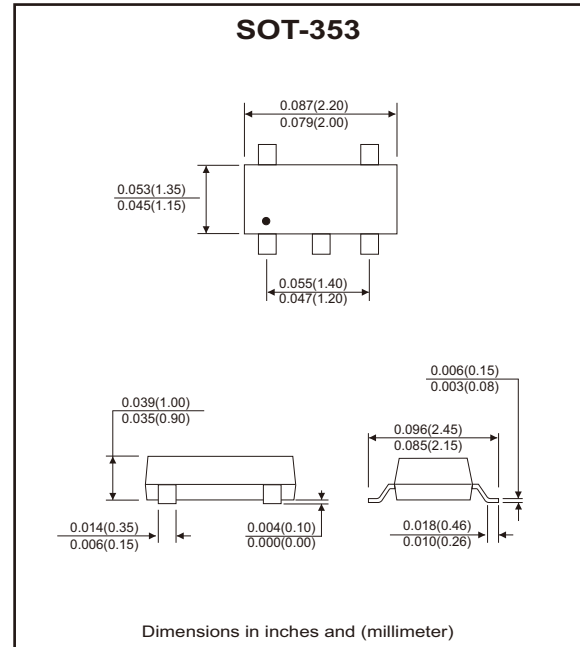
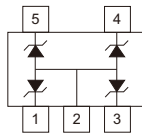
Features

- IEC 61000-4-2 Level 4 ESD protection.
- Working voltage: 3.3V.
- Low leakage current.
- Low operating and clamping voltages.

Mechanical data

- Case: SOT-353 standard package ,molded plastic.
- Terminals: Tin plated, solderable per MIL-STD-750, method 2026.
- Mounting position: Any.
- Weight: 0.0070 grams (approx.).

Circuit Diagram



Maximum Ratings (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power ($t_p = 8/20\mu\text{s}$)	P_{PP}	40	W
Peak pulse current ($t_p = 8/20\mu\text{s}$)	I_{PP}	5	A
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	V_{ESD}	± 20 ± 15	kV
Operating temperature range	T_j	-55 to +125	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to +125	$^{\circ}\text{C}$

Electrical Characteristics (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		V_{RWM}			3.3	V
Punch-through voltage	$I_{PT} = 2\mu\text{A}$	V_{PT}	3.5			V
Snap-back voltage	$I_{SB} = 50\text{mA}$	V_{SB}	2.8			V
Reverse leakage current	$V_{RWM} = 3.3\text{V}$	I_R		0.05	0.5	μA
Clamping voltage	$I_{PP} = 1\text{A}$, $t_p = 8/20\mu\text{s}$	V_C			5.5	V
	$I_{PP} = 5\text{A}$, $t_p = 8/20\mu\text{s}$	V_C			8.0	V
Reverse clamping voltage	$I_{PPR} = 1\text{A}$, $t_p = 8/20\mu\text{s}$	V_{CR}			2.4	V
Junction capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_j		12	16	pF

Rating and Characteristic Curves (CPDV5-3V3UP-HF)

Fig.1 - Non-Repetitive Max. Peak Pulse Power vs. Pulse Time

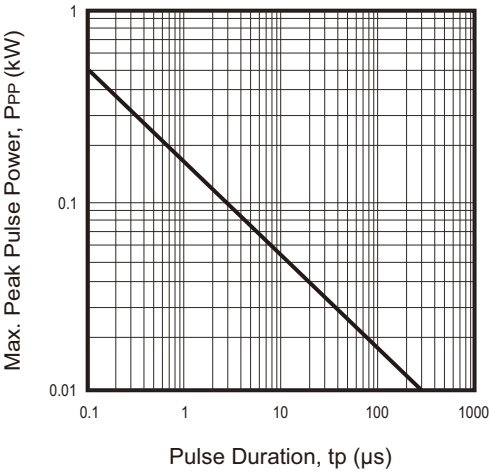


Fig.2 - Power Rating Derating Curve

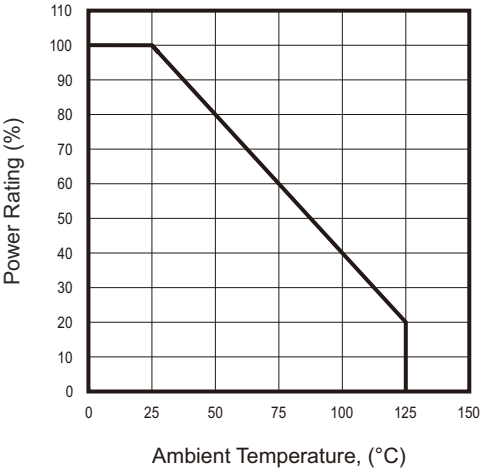


Fig.3 - Clamping Voltage vs. Peak Pulse Current

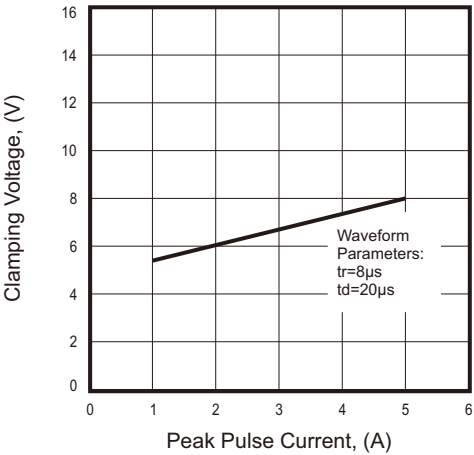


Fig.4 - Forward Voltage vs. Forward Current

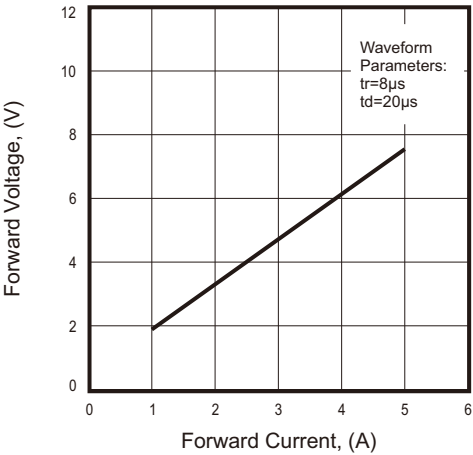
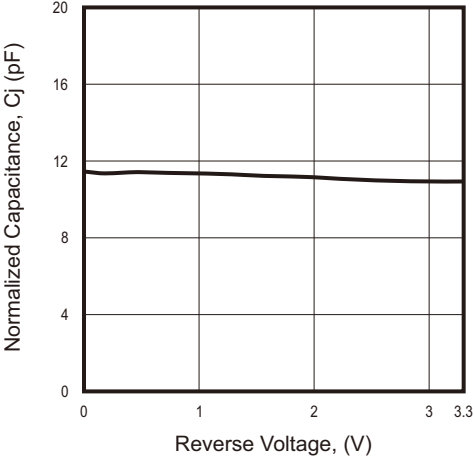
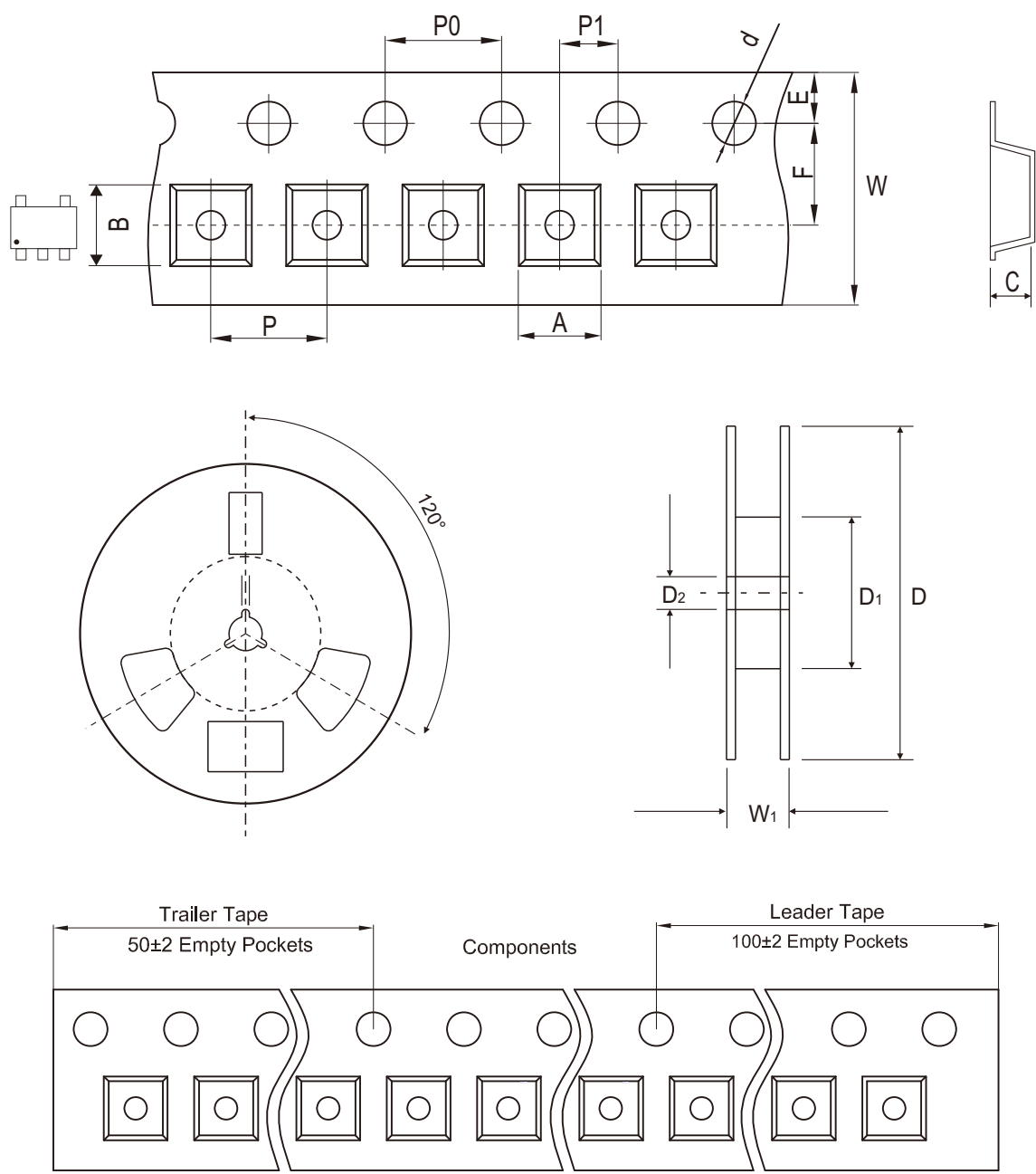


Fig.5 - Junction Capacitance vs. Reverse Voltage



Reel Taping Specification

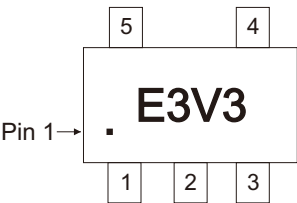


SOT-353	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.25 ± 0.05	2.55 ± 0.05	1.20 ± 0.05	$1.50 + 0.10$	178 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.089 ± 0.002	0.100 ± 0.002	0.047 ± 0.002	$0.059 + 0.004$	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOT-353	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	$8.00 + 0.30 / - 0.10$	12.30 ± 1.0
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	$0.315 + 0.012 / - 0.004$	0.484 ± 0.039

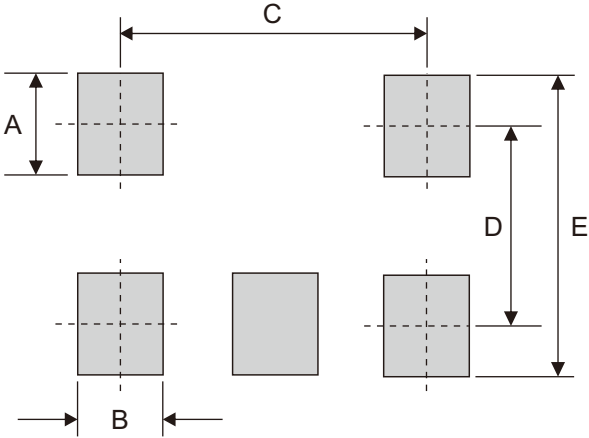
Marking Code

Part Number	Marking Code
CPDV5-3V3UP-HF	E3V3



Suggested P.C.B. PAD Layout

SIZE	SOT-353	
	(mm)	(inch)
A	0.80	0.031
B	0.40	0.016
C	1.30	0.051
D	1.94	0.076
E	2.74	0.108



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-353	3,000	7