

Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

[Comchip Technology](#)
[CPDV5-5V0U](#)

For any questions, you can email us directly:

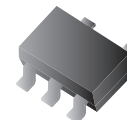
sales@integrated-circuit.com

SMD ESD Protection Diode



CPDV5-5V0U

RoHS Device



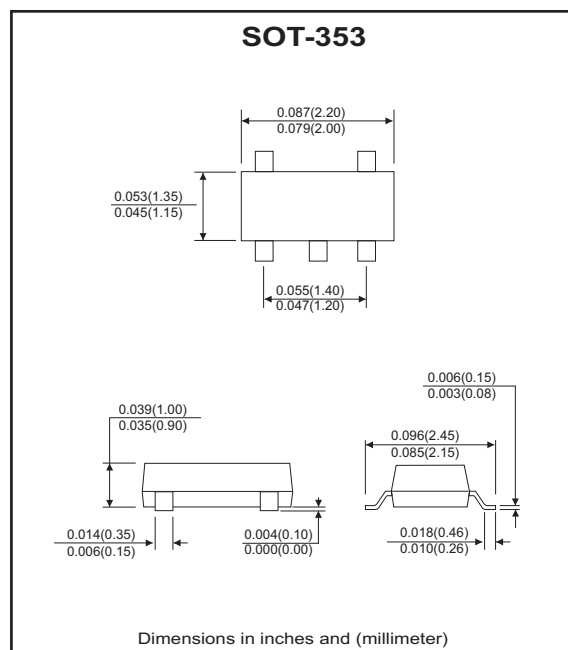
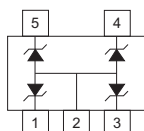
Features

- IEC61000-4-2 Level 4 ESD protection.
- Surface mount package.
- High component density.

Mechanical data

- Case: SOT-353 Standard package, molded plastic.
- Terminals: Tin plated, solderable per MIL-STD-750, method 2026.
- Marking code: E5U
- Mounting position: Any.
- Weight: 0.0070 gram (approx.).

Circuit diagram



Maximum Rating and Electrical Characteristics

(at TA=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Diode breakdown voltage	V _{BD}	I _R = 1mA	6.1		7.1	V
Leakage current	I _L	V _R = 3V		0.1	1.0	uA
Forward voltage	V _F	I _F = 5uA			1.2	V
Junction capacitance	C _T	V _R = 0V, f = 1MHz		60	80	pF
Clamping voltage	V _C	I _{PP} = 1A, T _P =8/20us I _{PP} = 8A, T _P =8/20us			8 10	V
ESD capability	ESD	IEC 61000-4-2(air) IEC 61000-4-2(contact)			15 8	kV
Peak pulse power	P _{PP}				80	W
Operation temperature	T _J				125	°C
Storage temperature	T _{STG}		-55		150	°C

SMD ESD Protection Diode



RATING AND CHARACTERISTIC CURVES (CPDV5-5V0U)

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

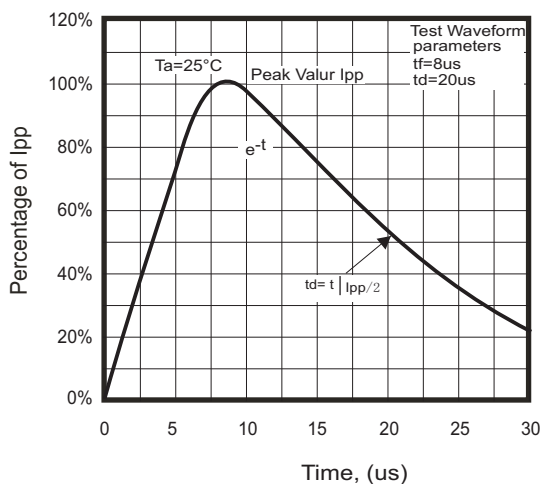


Fig.2 - Power rating derating curve

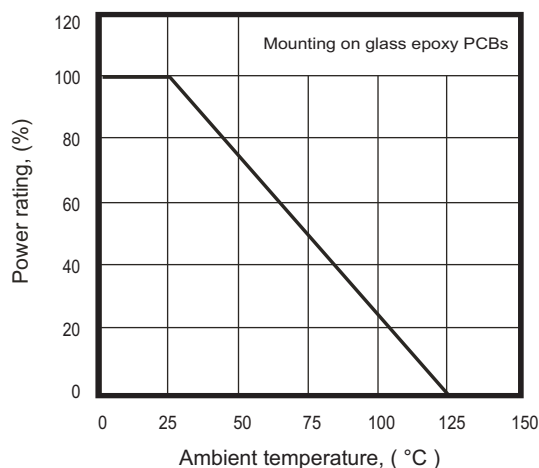


Fig.3 - Clamping voltage vs. peak pulse current

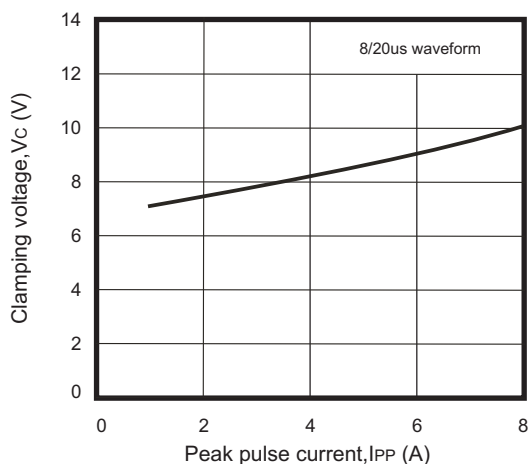
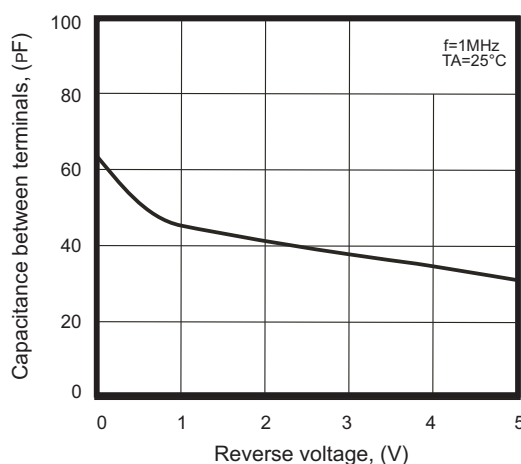
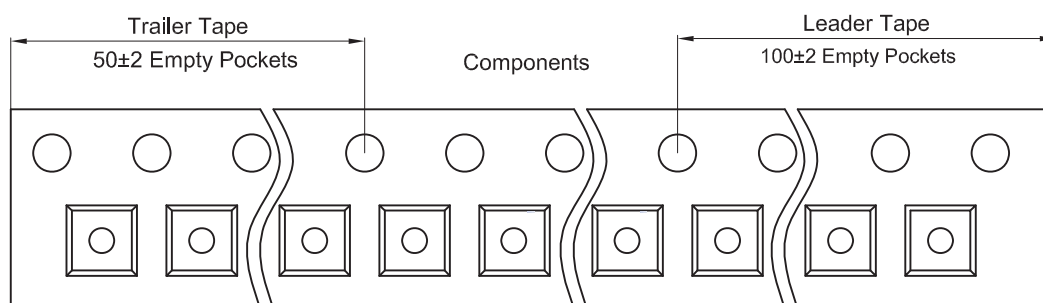
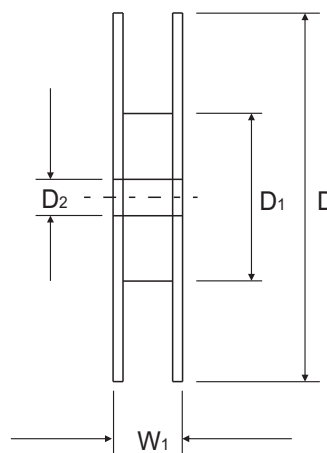
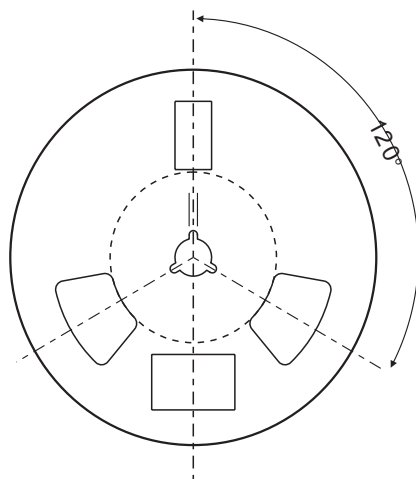
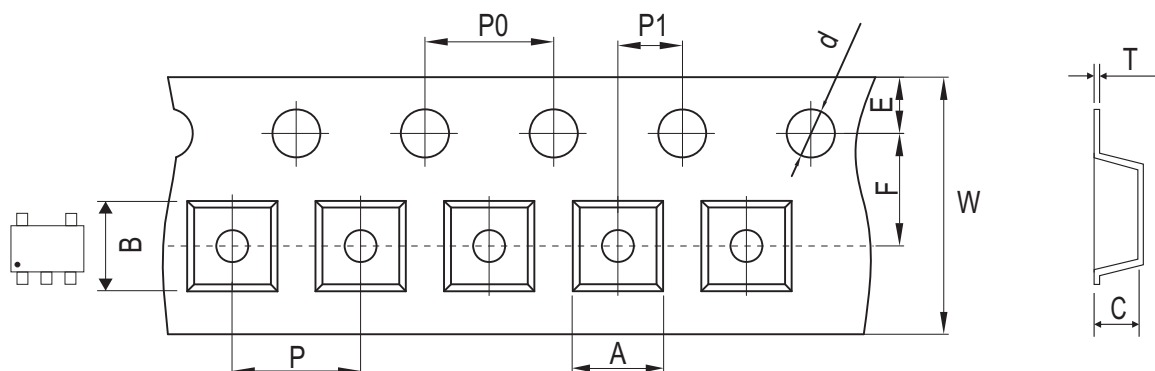


Fig.4 - Capacitance between terminals characteristics



SMD ESD Protection Diode

Reel Taping Specification



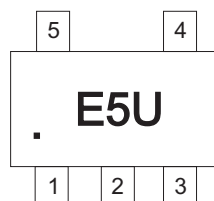
SOT-353	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.25±0.05	2.55±0.05	1.20±0.05	1.50±0.10	178±2.00	54.40±1.00	13.00±1.00
	(inch)	0.089±0.002	0.100±0.002	0.047±0.002	0.059±0.004	7.008±0.079	2.142±0.039	0.512±0.039

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

SMD ESD Protection Diode

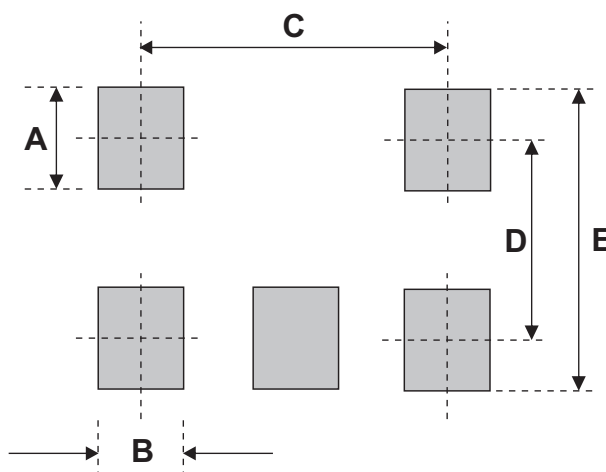
Marking Code

Part Number	Marking Code
CPDV5-5V0U	E5U



Suggested 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