

CPDV3-5V0U

RoHS Device



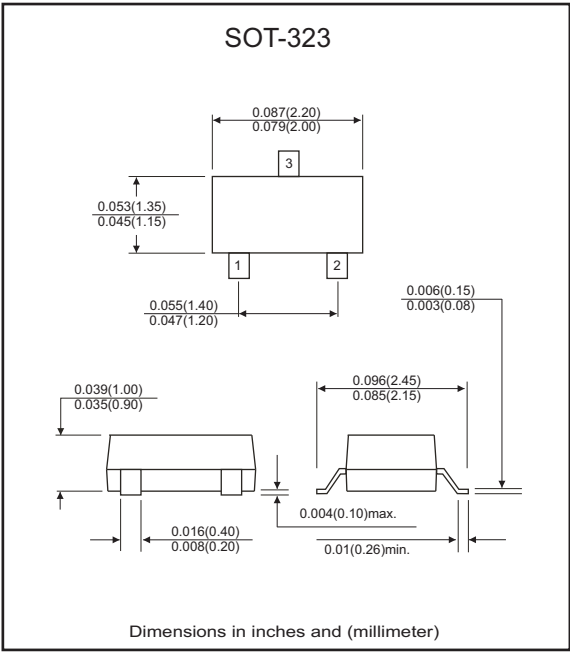
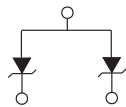
Features

- IEC61000-4-2 8kV(Contact), 15kV(air).
- Surface mount package.
- High component density.

Mechanical data

- Case: SOT-323 Standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750D, method 2026.
- Mounting position: Any.

Marking: E5U



Maximum Ratings and Electrical Characteristics

At TA=25 °C ambient temperature unless otherwise specified.

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Units
Diode breakdown voltage	V_{BD}	$I_z=1mA$	6.1		7.1	V
Leakage current	I_L	$V_R=3V$		0.1	1.0	μA
Forward voltage	V_F	$I_F=5\mu A$			1.2	V
Junction capacitance	C_T	$V_R=0V, f=1MHz$		60	80	pF
Clamping voltage	V_C	$I_{PP}=1A, T_P=8/20\mu s$ $I_{PP}=8A, T_P=8/20\mu s$			8 10	V
ESD capability	V_{ESD}	$C=150pF, R=300\Omega$, forward and reverse 10 pulses	8			kV
Peak pulse power	P_{PP}				80	W
Storage temperature	T_{STG}		-55		+125	$^{\circ}C$
Junction temperature	T_J		-55		+125	$^{\circ}C$

RATING AND CHARACTERISTIC CURVES (CPDV3-5V0U)

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

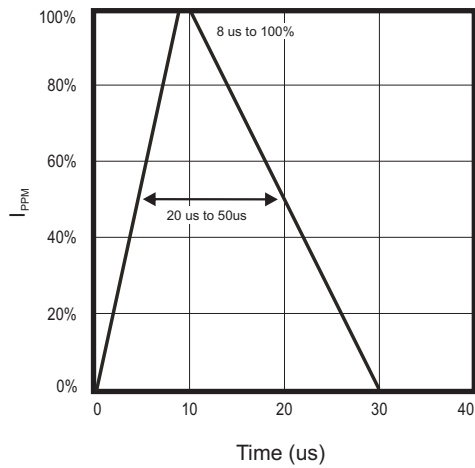


Fig. 2 - Power rating derating curve

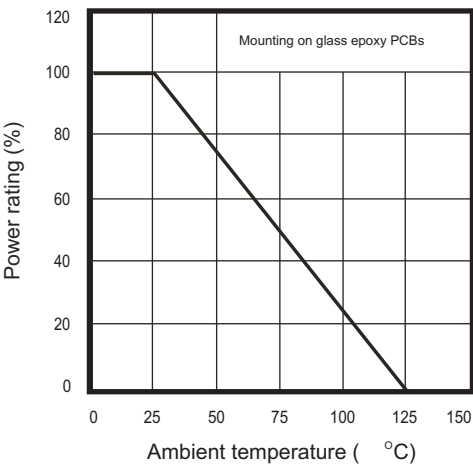


Fig. 3 - Clamping volatage vs. peak pulse current

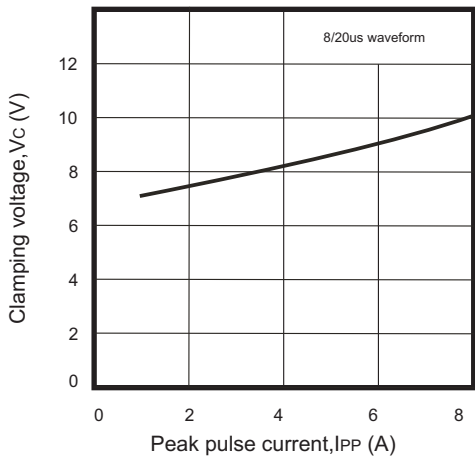
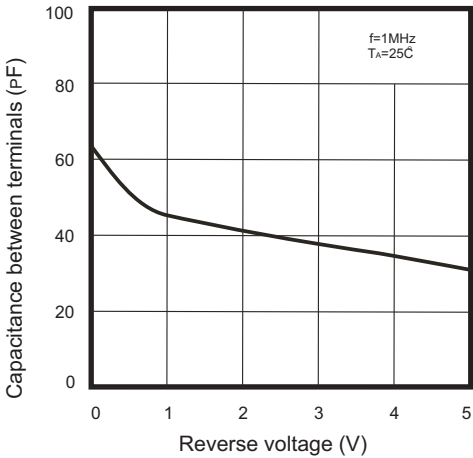
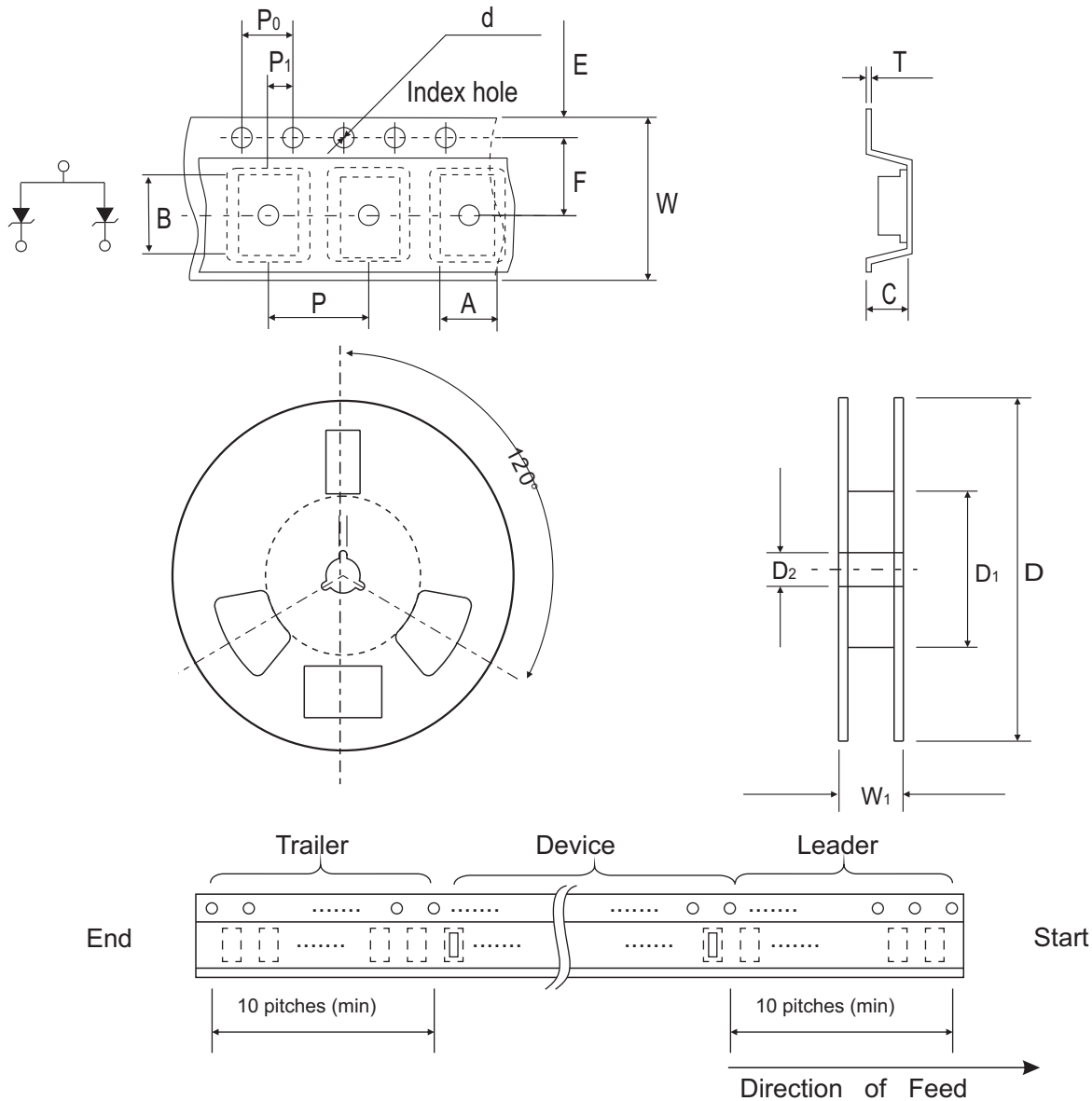


Fig. 4 - Capacitance between terminals characteristics



Reel Taping Specification

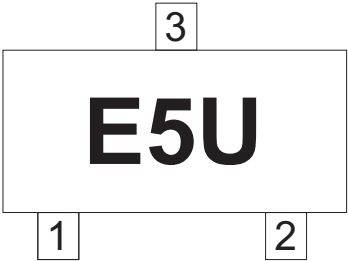


SOT-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.20 ± 0.10	2.40 ± 0.10	1.15 ± 0.10	1.55 ± 0.10	178 ± 1	50.0 MIN.	13.0 ± 0.20
	(inch)	0.087 ± 0.004	0.094 ± 0.004	0.045 ± 0.004	0.061 ± 0.004	7.008 ± 0.040	1.969 MIN.	0.512 ± 0.008

SOT-323	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 ± 0.30	14.4 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 ± 0.012	0.567 MAX

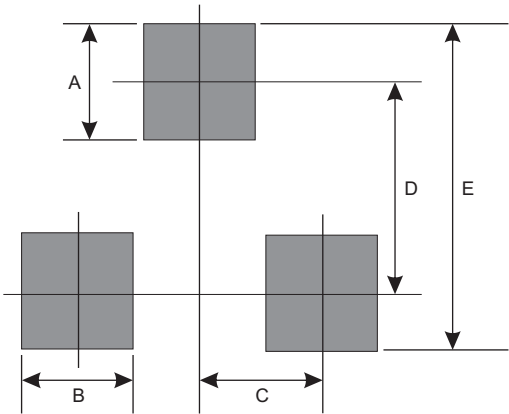
Marking Code

Park Number	Marking Code
CPDV3-5V0U	E5U



Suggested PAD Layout

SIZE	SOT-323	
	(mm)	(inch)
A	0.80	0.032
B	0.80	0.032
C	0.65	0.025
D	1.94	0.076
E	3.88	0.152



Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
SOT-323	3000	7