

## CPDVR085V0U RoHS Device



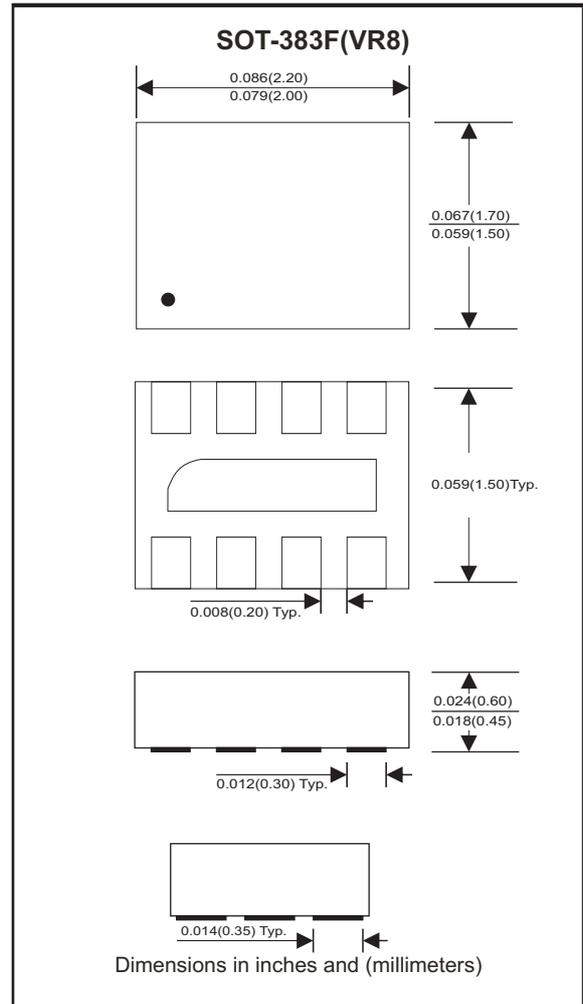
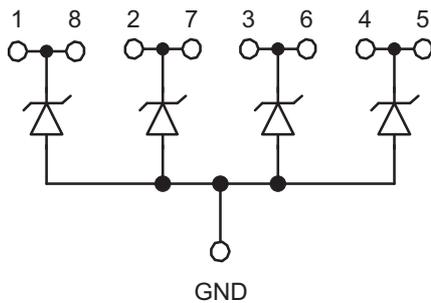
### Features

- Common anode ESD protection
- IEC 61000-4-2 8kV(contact), 15kV(air).
- Surface mount package.
- High component density.

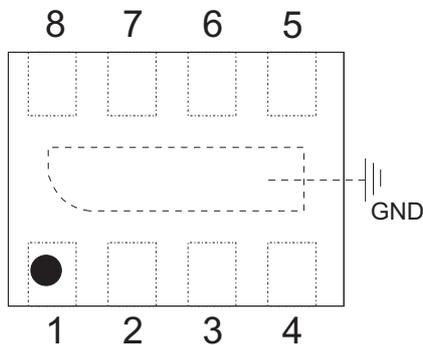
### Mechanical data

- Case: SOT-383F Standard package , molded plastic.
- Terminals: Nipd, solderable per MIL-STD-750, method 2026.
- Marking Code: E5U
- Mounting position: Any.

### Circuit Diagram



### Package



## Maximum Rating and Electrical Characteristics

(at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 10\text{mA}$	$V_F$		0.8		V
Diode breakdown voltage	$I_R = 1\text{mA}$	$V_{BD}$	6			V
Leakage current	$V_R = 5\text{V}$	$I_L$		0.3	2.0	$\mu\text{A}$
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	$C_T$		90	120	pF
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD			20 15	kV
Clamping voltage	$I_{PP} = 5\text{A}, T_P=8/20\mu\text{s}$ $I_{PP} = 16\text{A}, T_P=8/20\mu\text{s}$	$V_C$			9.8 12.5	V
Peak pulse power		$P_{PP}$			200	W
Operation temperature		$T_J$			125	°C
Storage temperature		$T_{STG}$	-55		150	°C

## RATING AND CHARACTERISTIC CURVES (CPDVR085V0U)

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

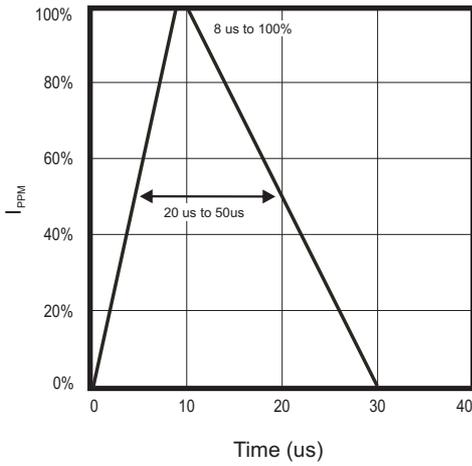


Fig. 2 - Power rating derating curve

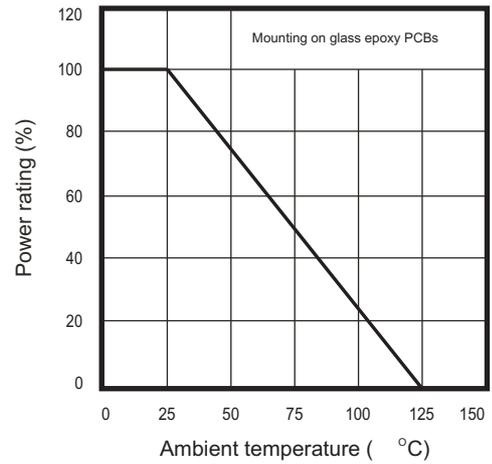


Fig. 3 - Clamping voltage vs. peak pulse current

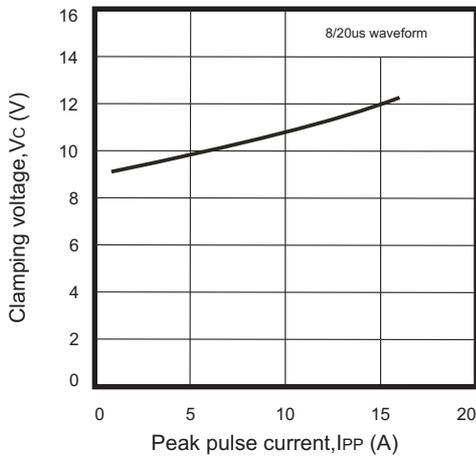


Fig. 4 - Forward voltage vs. forward current

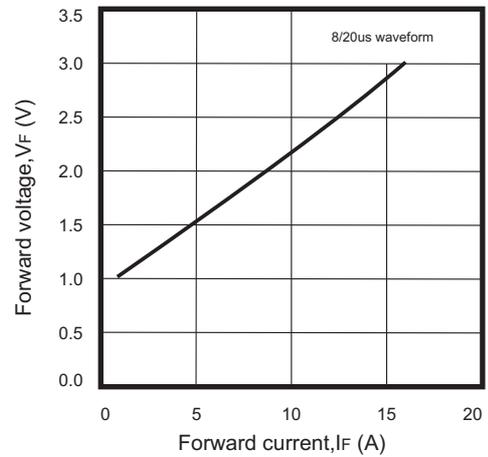
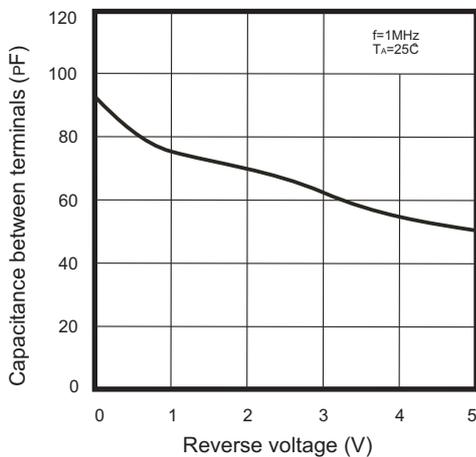
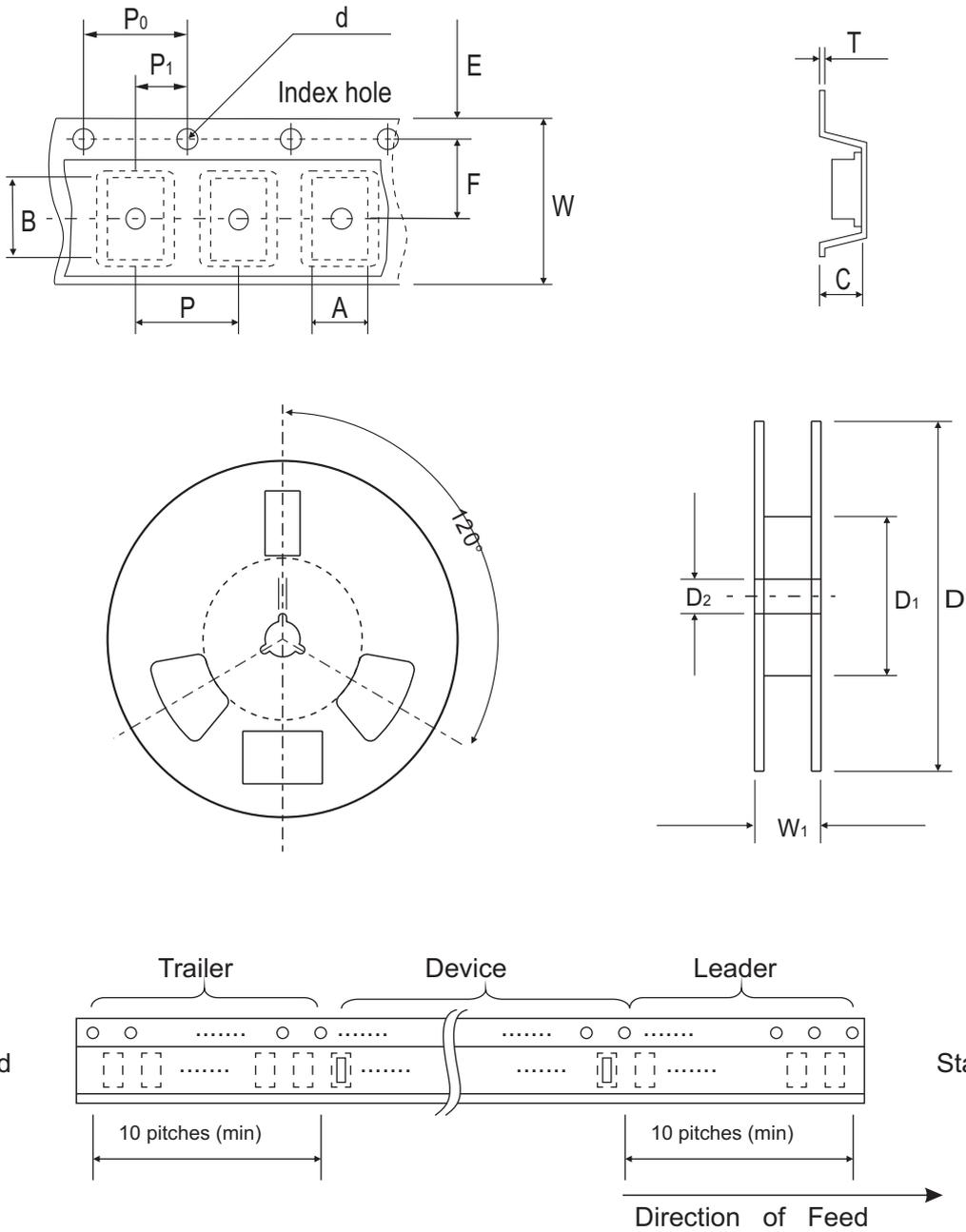


Fig. 5 - Capacitance between terminals characteristics



## Reel Taping Specification



SOT-383F	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	1.96 ± 0.10	2.31 ± 0.10	0.74 ± 0.10	1.55 ± 0.10	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.077 ± 0.004	0.091 ± 0.004	0.029 ± 0.004	0.061 ± 0.004	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

SOT-383F	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.22 ± 0.05	8.00 ± 0.20	13.5 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.002	0.315 ± 0.008	0.531 MAX.

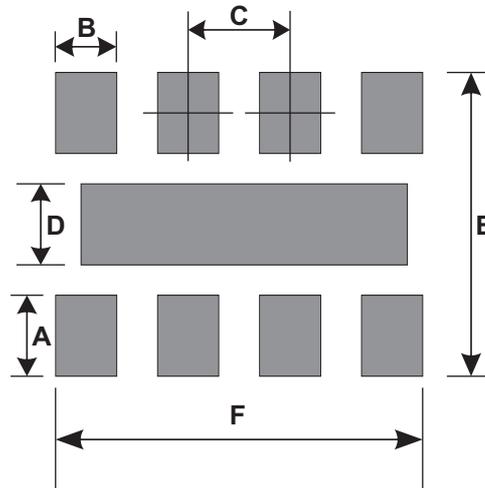
## Marking Code

Part Number	Marking Code
CPDVR085V0U	E5U



## Suggested PAD Layout

SIZE	SOT-383F(VR8)	
	(mm)	(inch)
A	0.630	0.025
B	0.300	0.012
C	0.500	0.020
D	0.450	0.018
E	2.150	0.085
F	1.800	0.071



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOT-383F (VR8)	3,000	7