

## CPDVR085V0H-HF

RoHS Device  
Halogen Free

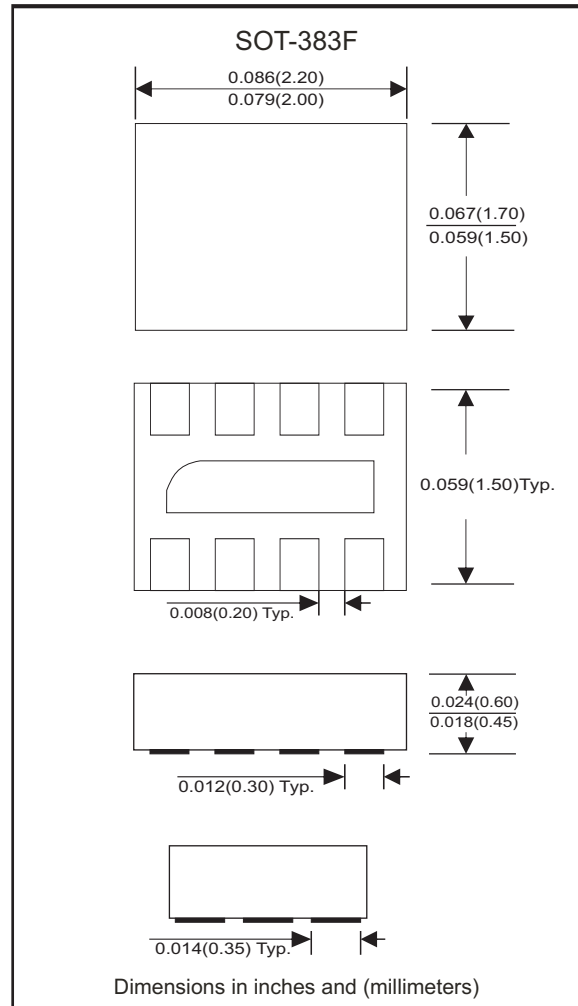


### Features

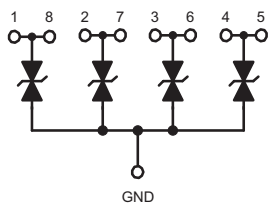
- Bi-directional ESD protection
- IEC 61000-4-5 (surge) ; IPP=7A
- IEC 61000-4-2 (ESD) ; ±30KV(contact)
- Low clamping voltage
- Low leakage current

### Mechanical data

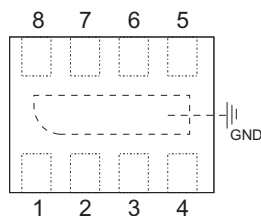
- Case: SOT-383F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750,method 2026.
- Marking Code: E05
- Mounting position: Any.
- Weight: 0.004 gram(approx.).



### Circuit Diagram



### Package



## Maximum Rating and Electrical Characteristics (at TA=25 °C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Diode breakdown voltage	$I_R = 1\text{mA}$	$V_{BD}$	5.5	7.0		V
Leakage current	$V_R = 5\text{V}$	$I_L$			1.0	$\mu\text{A}$
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	$C_T$			20	pF
ESD capability	IEC 61000-4-2(air)	ESD			30	kV
	IEC 61000-4-2(contact)	ESD			30	kV
Clamping Voltage	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$	$V_c$			11	V
	$I_{PP} = 7\text{A}, t_p = 8/20\mu\text{s}$	$V_c$			20	V
Peak Pulse Power	$T_P = 8/20\mu\text{s}$	$P_{PP}$			140	W
Operation temperature		$T_j$			125	°C
Storage temperature		$T_{STG}$	-55		150	°C

## RATING AND CHARACTERISTIC CURVES (CPDVR085V0H-HF)

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

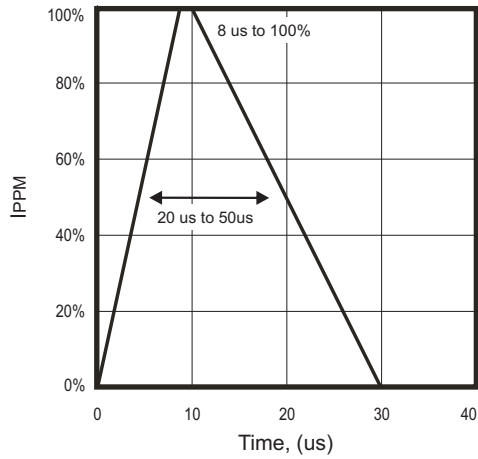


Fig. 2 - Capacitance between terminals characteristics

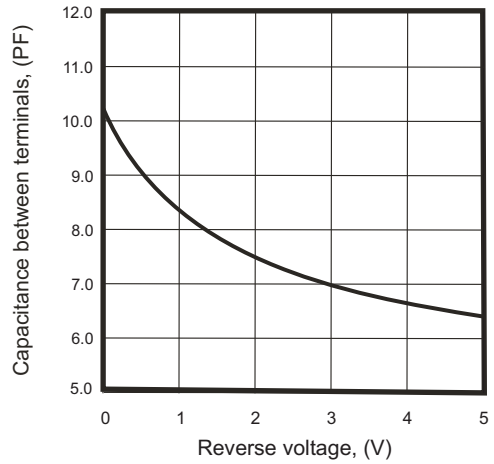


Fig.3 - Clamping voltage vs. peak pulse current

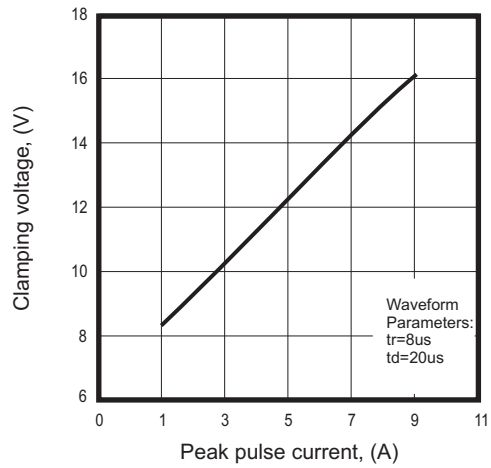
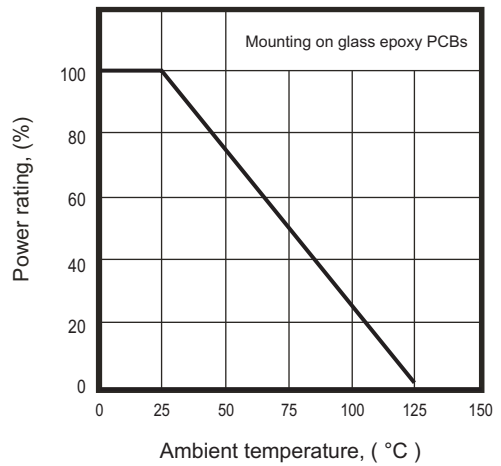
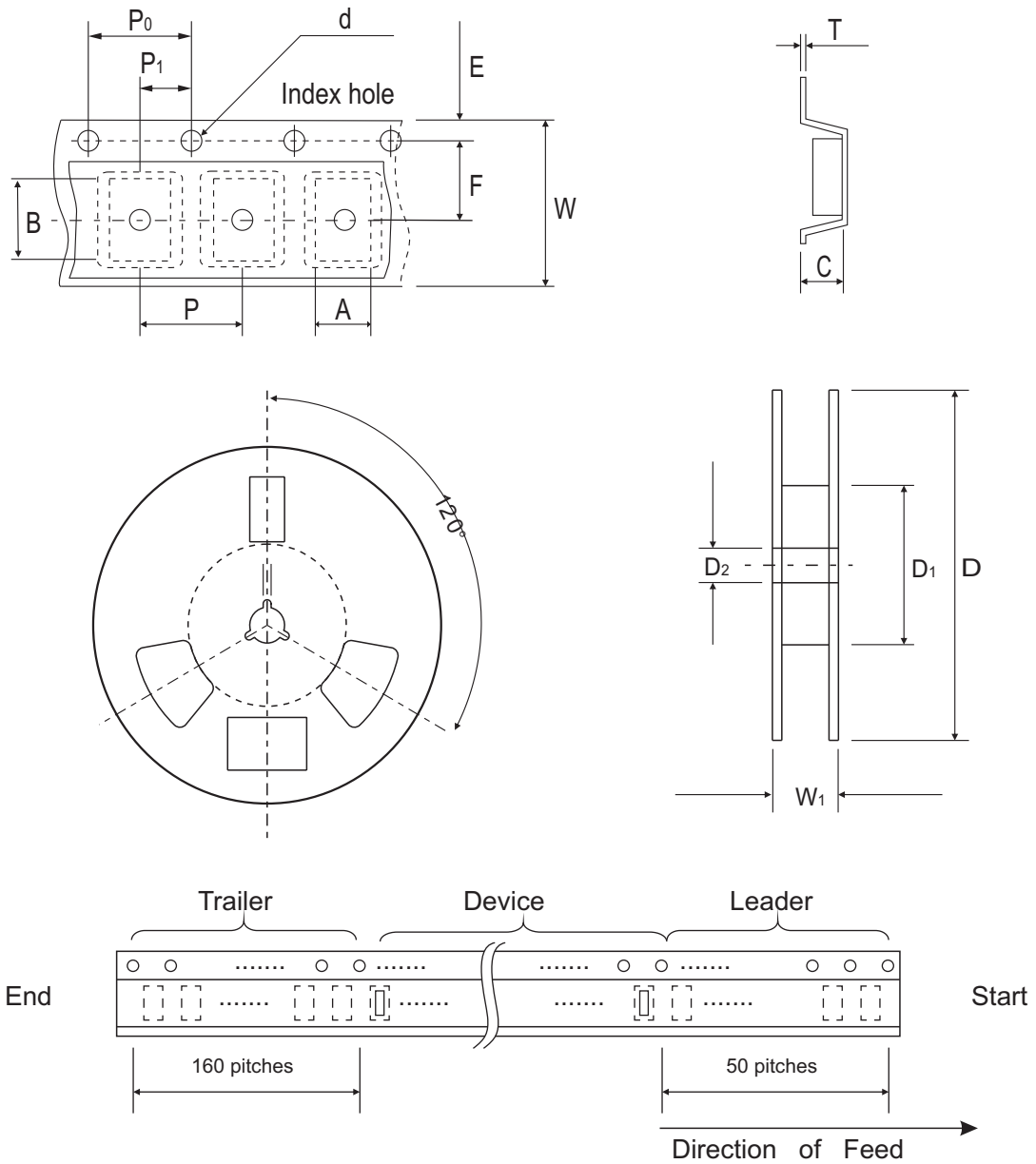


Fig. 4 - Power rating derating curve



## Reel Taping Specification

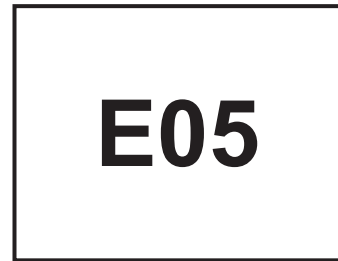


SOT-383F	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	1.96 ± 0.10	2.31 ± 0.10	0.74 ± 0.10	1.55 ± 0.10	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.077 ± 0.004	0.091 ± 0.004	0.029 ± 0.004	0.061 ± 0.004	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

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.

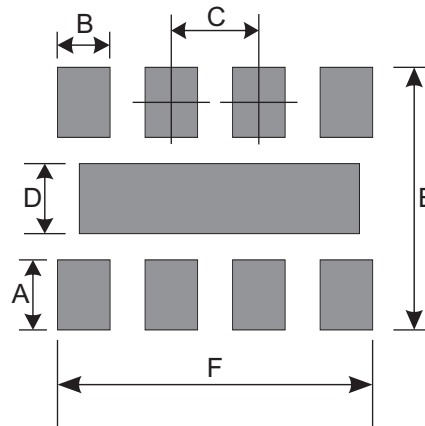
## Marking Code

Part Number	Marking Code
CPDVR085V0H-HF	E05



## Suggested PAD Layout

SIZE	SOT-383F	
	(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	Qty Per Reel	Reel Size
	(Pcs)	(inch)
SOT-383F	3,000	7