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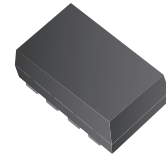
sales@integrated-circuit.com

SMD ESD Protection Diode



CPDVR085V0UA-HF

RoHS Device
Halogen Free



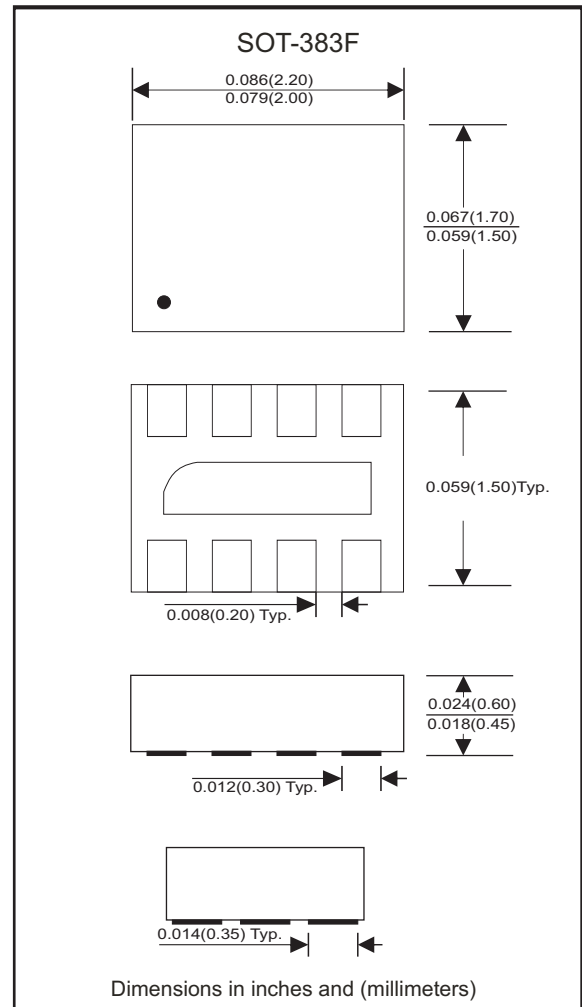
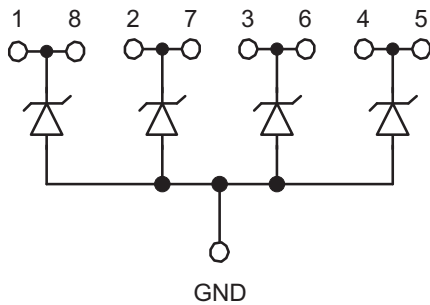
Features

- Common anode ESD protection
- Surface mount package.
- High component density.

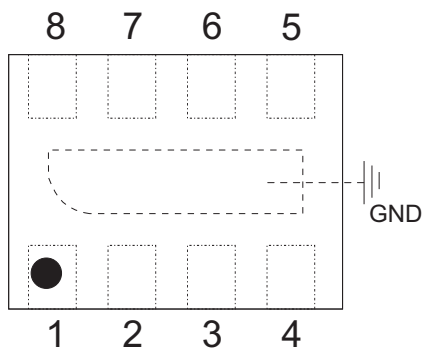
Mechanical data

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

Circuit Diagram



Package



SMD ESD Protection Diode



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	IF = 10mA	VF		0.8		V
Diode breakdown voltage	IR = 1mA	VBD	6			V
Leakage current	VR = 5V	IL		0.3	2.0	uA
Junction capacitance	VR = 0V, f = 1MHz	CT		90	120	pF
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD			20 15	kV
Clamping voltage	I _{PP} = 5A, T _P =8/20us I _{PP} = 16A, T _P =8/20us	VC			9.8 12.5	V
Peak pulse power		PPP			200	W
Operation temperature		TJ			125	°C
Storage temperature		TSTG	-55		150	°C

SMD ESD Protection Diode



RATING AND CHARACTERISTIC CURVES (CPDVR085V0UA-HF)

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

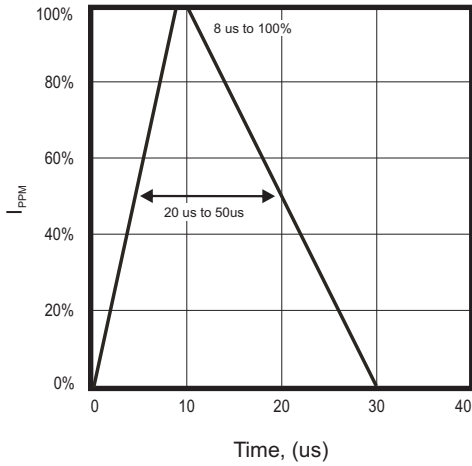


Fig. 2 - Power rating derating curve

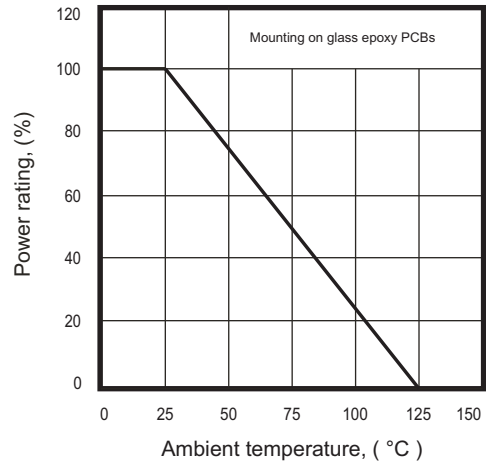


Fig. 3 - Clamping voltage vs. peak pulse current

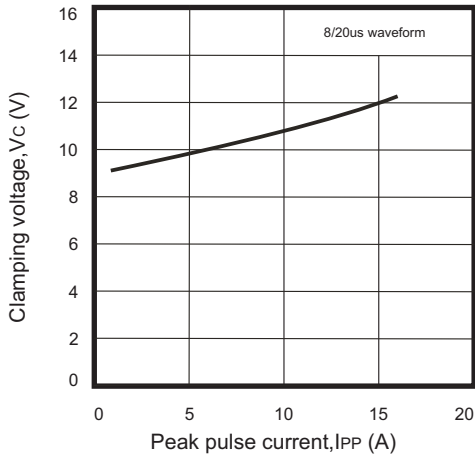


Fig. 4 - Forward voltage vs. forward current

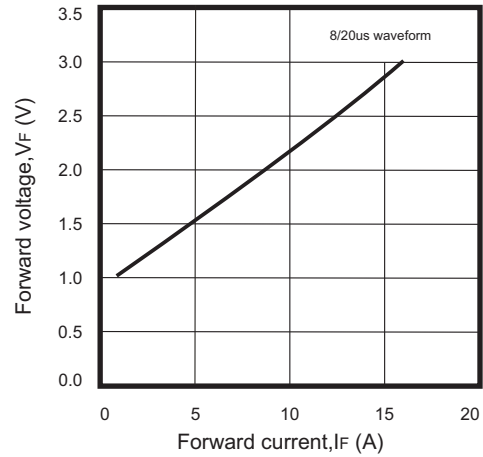
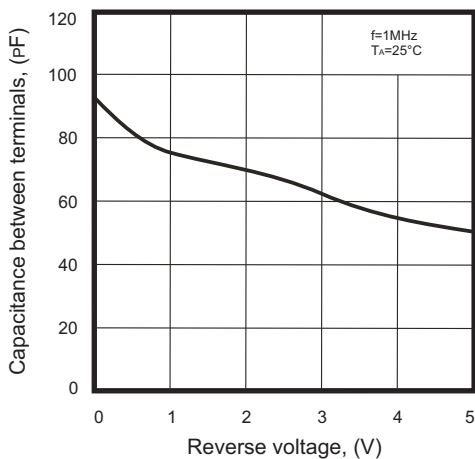


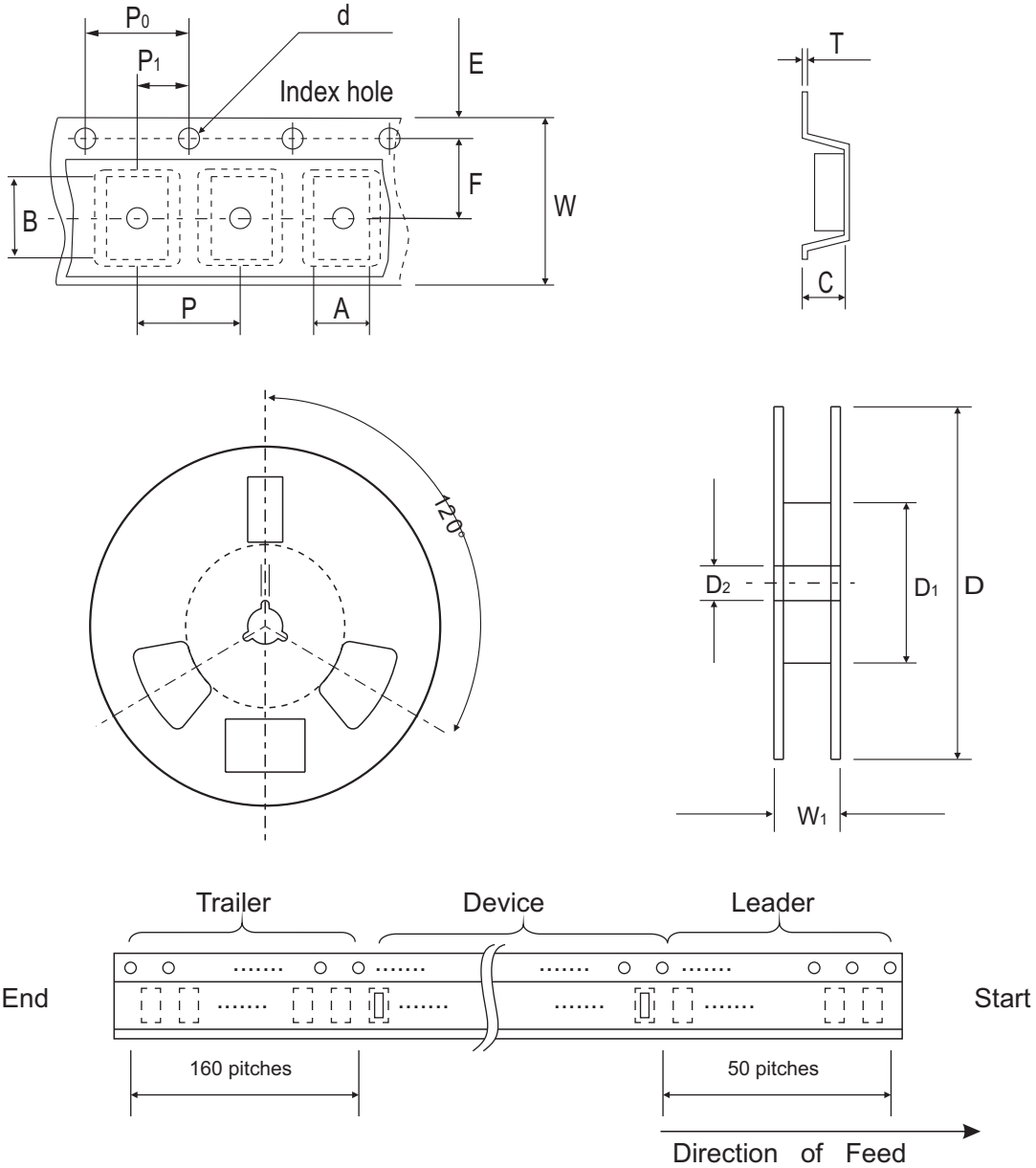
Fig. 5 - Capacitance between terminals characteristics



SMD ESD Protection Diode



Reel Taping Specification



SOT-383F	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(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 ₀	P ₁	T	W	W ₁
	(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.

SMD ESD Protection Diode

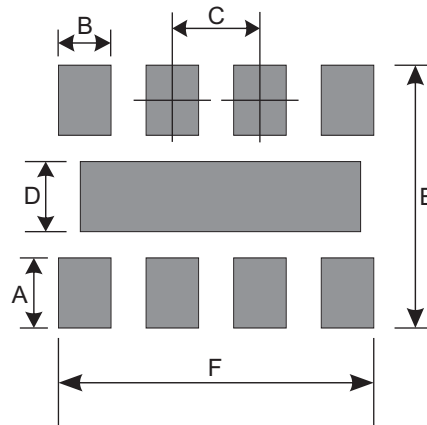
Marking Code

Part Number	Marking Code
CPDVR085V0UA-HF	E5U



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