

## CPDU5V0C-HF

RoHS Device  
Halogen Free

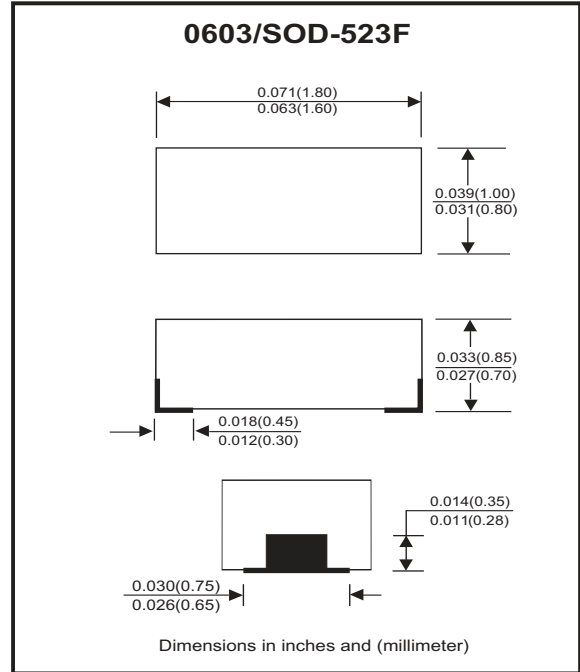


### Features

- Bi-directional ESD protection.
- Surface mount package.
- Operating voltage: 5V.

### Mechanical data

- Case: 0603/SOD-523F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Marking Code:  
CPDU5V0C-HF: E05
- Mounting position: Any.
- Weight: 0.003 grams(approx.).



### Circuit Diagram



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Diode breakdown voltage	I <sub>R</sub> = 1mA	V <sub>BD</sub>	6.1	7		V
Leakage current	V <sub>R</sub> = 5V	I <sub>L</sub>		0.1	2	uA
Junction capacitance	V <sub>R</sub> = 0V, f = 1MHz	C <sub>T</sub>		25	30	pF
ESD capability	IEC 61000-4-2(air)	ESD			16	kV
	IEC 61000-4-2(contact)				8	
Clamping Voltage	I <sub>PP</sub> = 1 A, t <sub>p</sub> =8/20us	V <sub>c</sub>			10	V
	I <sub>PP</sub> = 4 A, t <sub>p</sub> =8/20us	V <sub>c</sub>			17	V
Operation temperature		T <sub>j</sub>	-55		125	°C
Storage temperature		T <sub>STG</sub>	-55		150	°C

## RATING AND CHARACTERISTIC CURVES (CPDU5V0C-HF)

Fig. 1 - Reverse characteristics

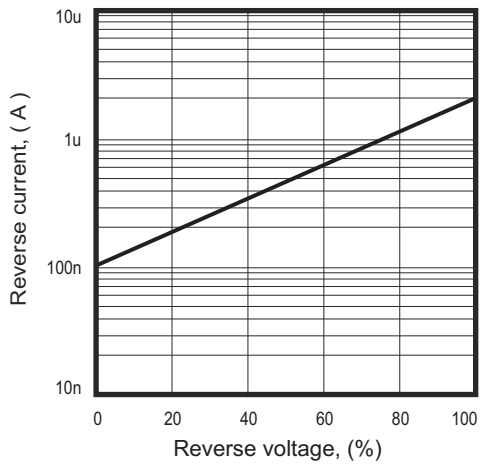


Fig. 2 - Capacitance between terminals characteristics

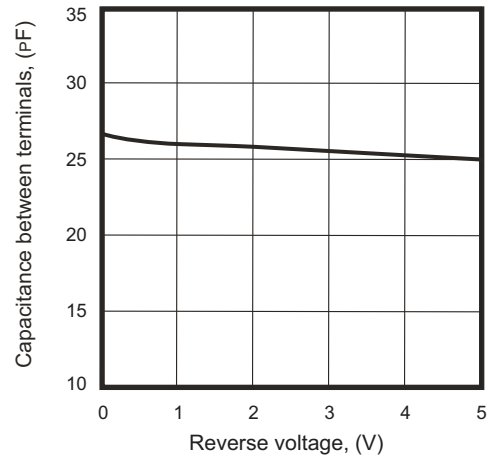


Fig.3 - Clamping voltage vs. peak pulse current

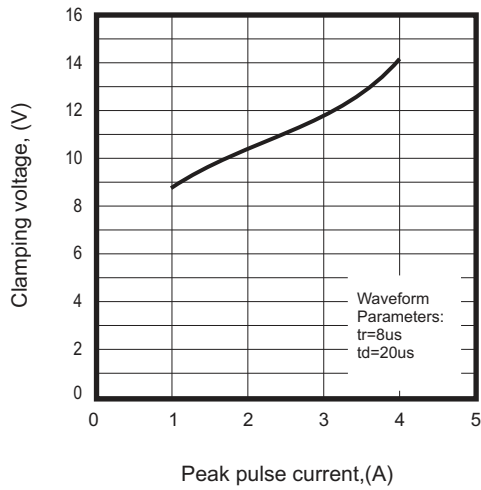
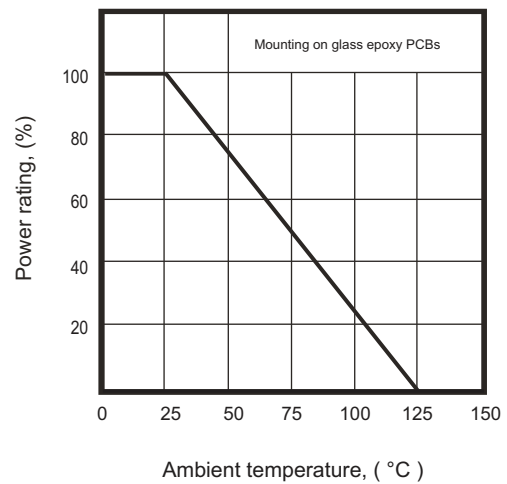
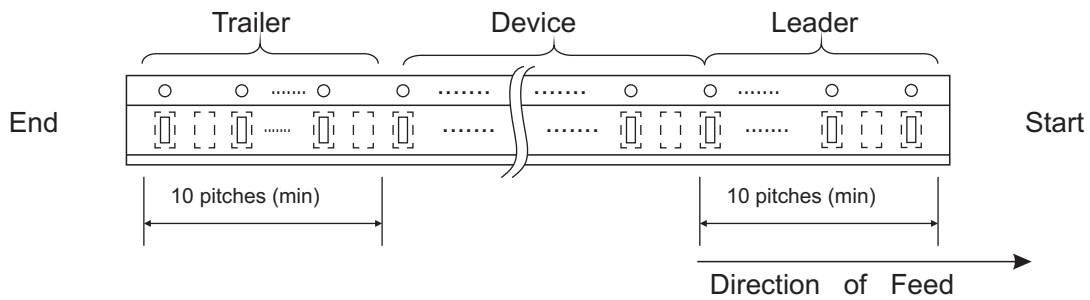
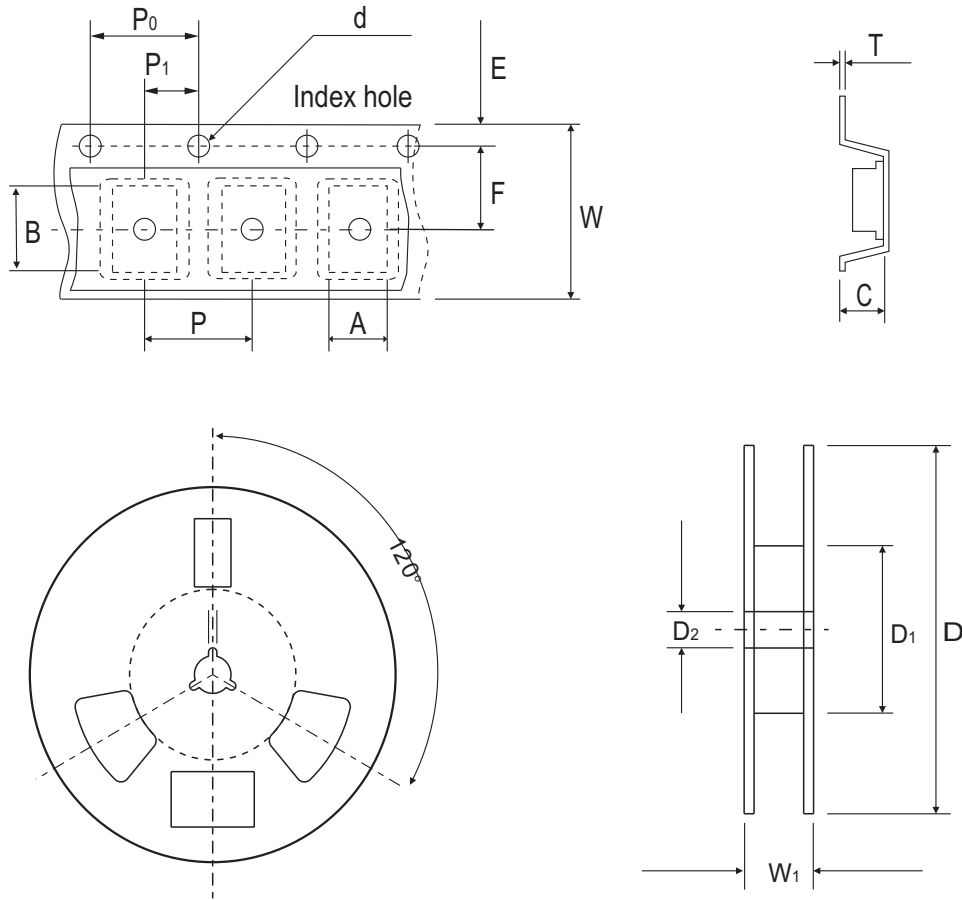


Fig. 4 - Power rating derating curve



## Reel Taping Specification



0603 (SOD-523)	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	1.00 ± 0.10	1.85 ± 0.10	1.00 ± 0.10	1.55 ± 0.05	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.039 ± 0.004	0.073 ± 0.004	0.039 ± 0.004	0.061 ± 0.002	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

0603 (SOD-523)	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 ± 0.05	0.23 ± 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.

Company reserves the right to improve product design , functions and reliability without notice.

REV:D

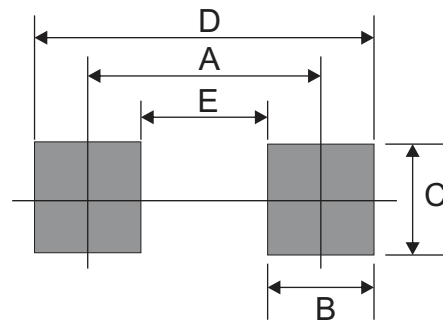
## Marking Code

Part Number	Marking Code
CPDU5V0C-HF	E05



## Suggested PAD Layout

SIZE	0603/SOD-523F	
	(mm)	(inch)
A	1.70	0.067
B	0.60	0.024
C	0.80	0.031
D	2.30	0.091
E	1.10	0.043



## Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
0603/SOD-523F	4,000	7