

CPDF Series (RoHS Device)

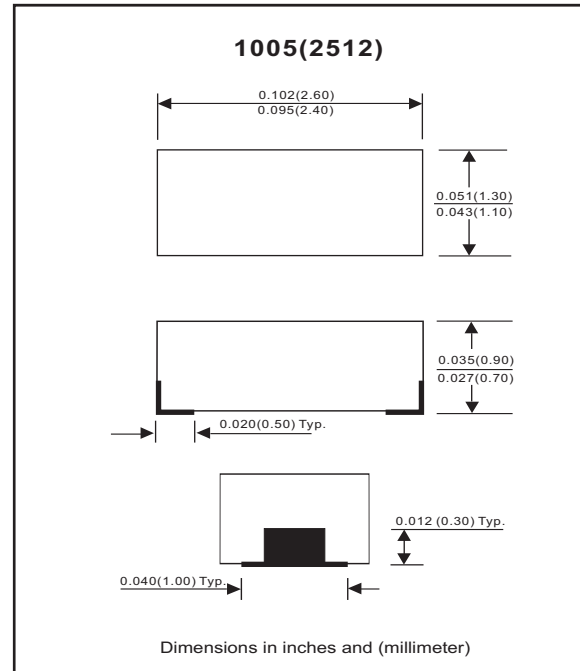
Features

- Bi-directional ESD protection.
- (16kV) IEC 61000-4-2 rating.
- Surface mount package.
- High component density.



Mechanical data

- Case: 1005(2512) standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Marking Code:
 - CPDF5V0: E05
 - CPDF12V: E12
 - CPDF24V: E24
 - CPDF36V: E36
- Mounting position: Any.
- Weight: 0.006 gram(approx.).



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

Parameter		Conditions	Symbol	Min	Typ	Max	Unit
Diode breakdown voltage	CPDF5V0	I _F = 1mA	V _{BD}	5.1	7.0		V
	CPDF12V			13	17		
	CPDF24V			25	28		
	CPDF36V			38	40		
Leakage current	CPDF5V0	V _R = 5V V _R = 12V V _R = 24V V _R = 36V	I _L		±0.1	±2.0	uA
	CPDF12V						
	CPDF24V						
	CPDF36V						
Capacitance	CPDF5V0	@ 1MHz	C _T		15	20	pF
	CPDF12V				12	---	
	CPDF24V				10	---	
	CPDF36V				5	---	
Channel clamp voltage	CPDF5V0	8kV event	V _{ESD}			± 7.0	V
	CPDF12V					± 17	
	CPDF24V					± 25	
	CPDF36V					± 40	
Peak ESD voltage capability	CPDF Series	IEC 61000-4-2	V _{PV}			16	kV
Peak pulse current	CPDF5V0	8 / 20 us	I _{PP} *			5.1	A
	CPDF12V					1	
	CPDF24V					1	
	CPDF36V					1	
Power Dissipation	CPDF Series		P _D			200	mW
Operation temperature	CPDF Series		T _j			+125	°C
Storage temperature	CPDF Series		T _{STG}	-55		+150	°C

* one diode conducting.

RATING AND CHARACTERISTIC CURVES (CPDF Series)

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

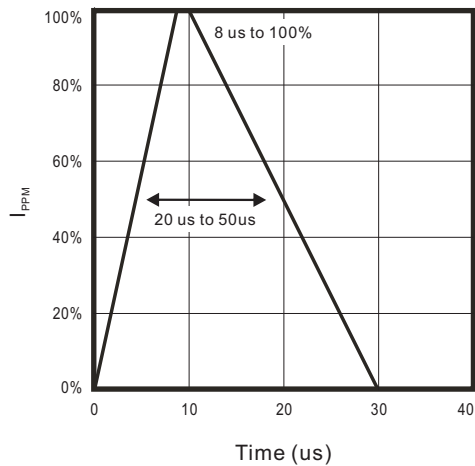


Fig. 2 - Reverse characteristics

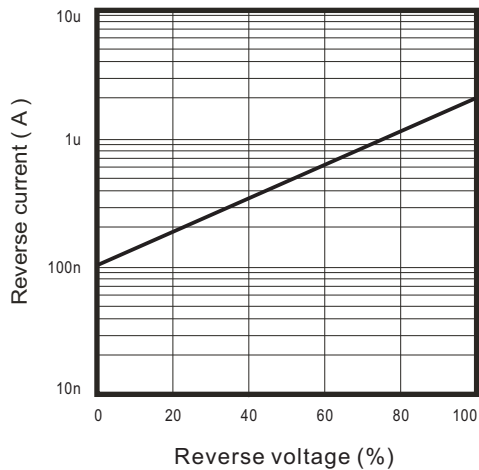


Fig. 3 - Capacitance between terminals characteristics

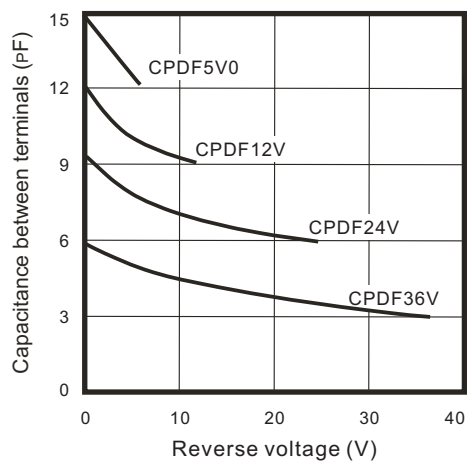
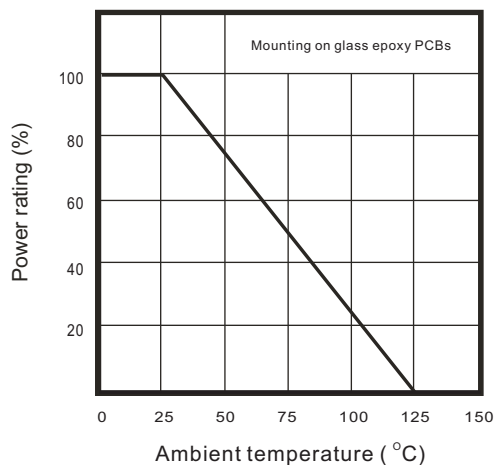
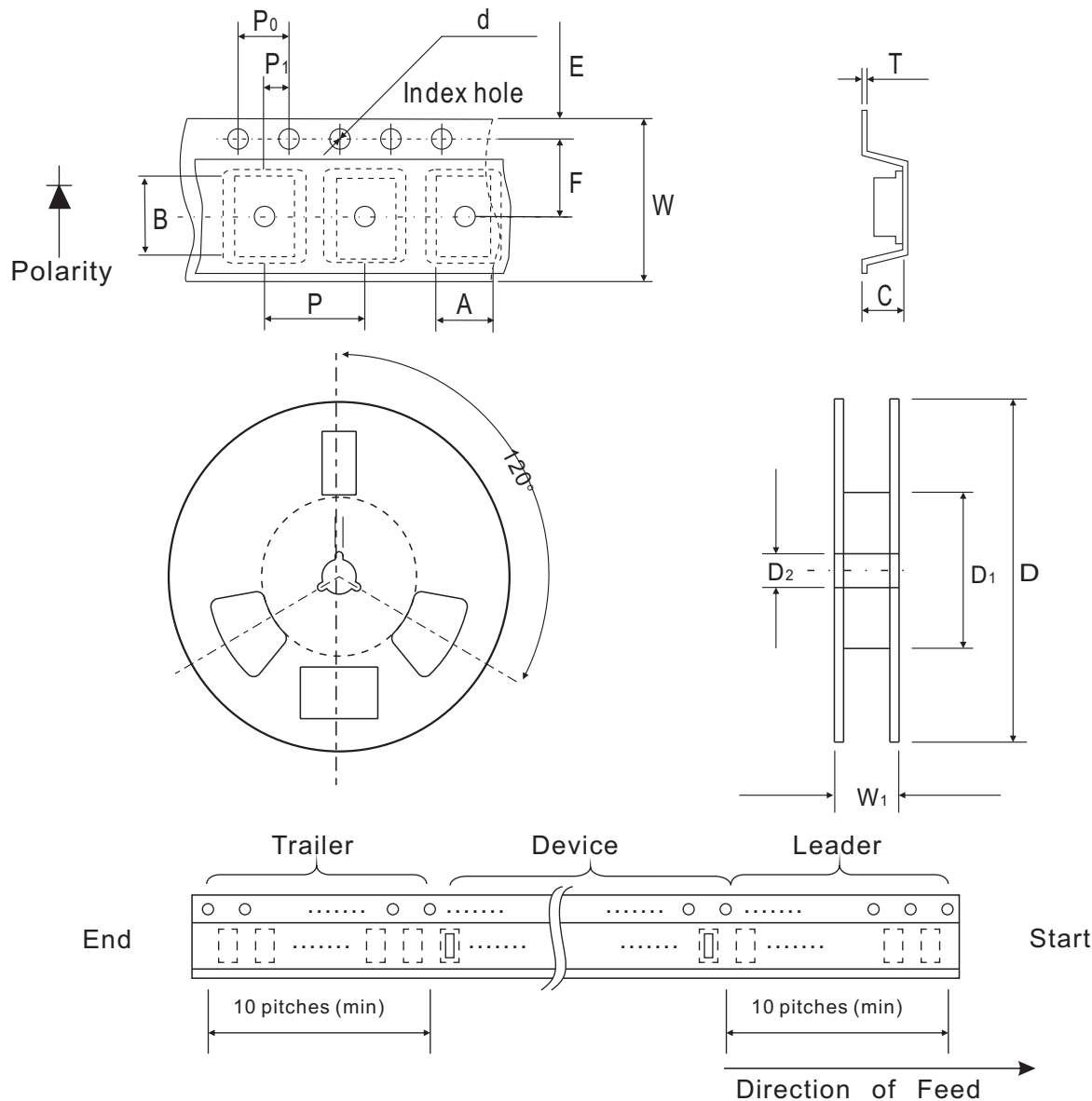


Fig. 4 - Power rating derating curve



Reel Taping Specification



F/1005	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.55 ± 0.10	2.65 ± 0.10	1.05 ± 0.10	1.55 ± 0.05	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.061 ± 0.004	0.104 ± 0.004	0.041 ± 0.004	0.061 ± 0.002	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

F/1005	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 ± 0.05	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.

Marking Code

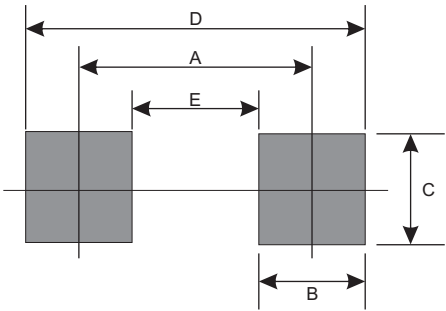
Park Number	Marking Code
CPDF5V0	E05
CPDF12V	E12
CPDF24V	E24
CPDF36V	E36



xxx = Product type marking code

Suggested PAD Layout

SIZE	F/1005	
	(mm)	(inch)
A	2.10	0.083
B	1.20	0.047
C	1.20	0.047
D	3.30	0.130
E	0.90	0.035



Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
F/1005	4000	7