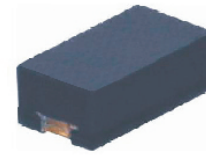


CPDK Series RoHS Device

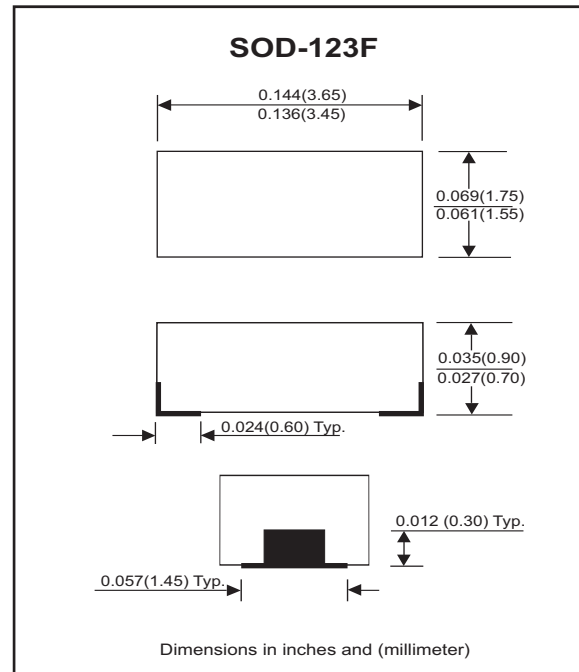


Features

- Bi-directional ESD protection.
- Surface mount package.
- High component density.

Mechanical data

- Case: SOD-123F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Marking Code:
CPDK5V0: E05
CPDK12V: E12
CPDK24V: E24
- Mounting position: Any.
- Weight: 0.011 gram(approx.).



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

Parameter		Conditions	Symbol	Min	Typ	Max	Unit
Diode breakdown voltage	CPDK5V0	I _R = 1mA	V _{BD}	5.1	7.0		V
	CPDK12V			13	17		
	CPDK24V			25	28		
Leakage current	CPDK5V0	V _R = 5V	I _L		0.1	2.0	uA
	CPDK12V	V _R = 12V					
	CPDK24V	V _R = 24V					
Junction capacitance	CPDK5V0	V _R = 0V, f = 1MHz	C _T		15	20	pF
	CPDK12V				12	---	
	CPDK24V				10	---	
ESD capability	CPDK Series	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD			16 8	kV
Clamping voltage	CPDK5V0	I _{PP} = 5A, T _P =8/20us	V _C			15	V
	CPDK12V	I _{PP} = 1A, T _P =8/20us				25	
	CPDK24V	I _{PP} = 1A, T _P =8/20us				47	
Peak pulse power	CPDK5V0	T _P =8/20us	P _{PP}			75	W
	CPDK12V					25	
	CPDK24V					47	
Operation temperature	CPDK Series		T _J			125	°C
Storage temperature	CPDK Series		T _{STG}	-55		150	°C

RATING AND CHARACTERISTIC CURVES (CPDK Series)

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

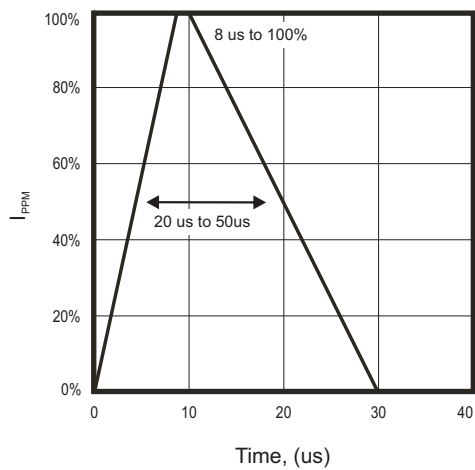


Fig. 2 - Reverse characteristics

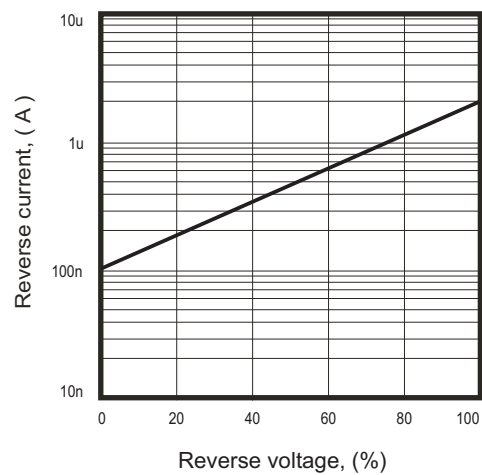


Fig. 3 - Capacitance between terminals characteristics

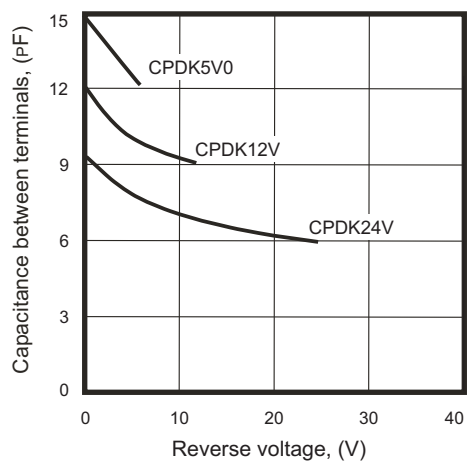
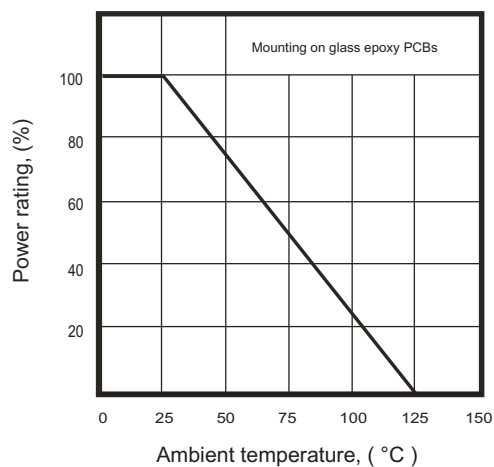
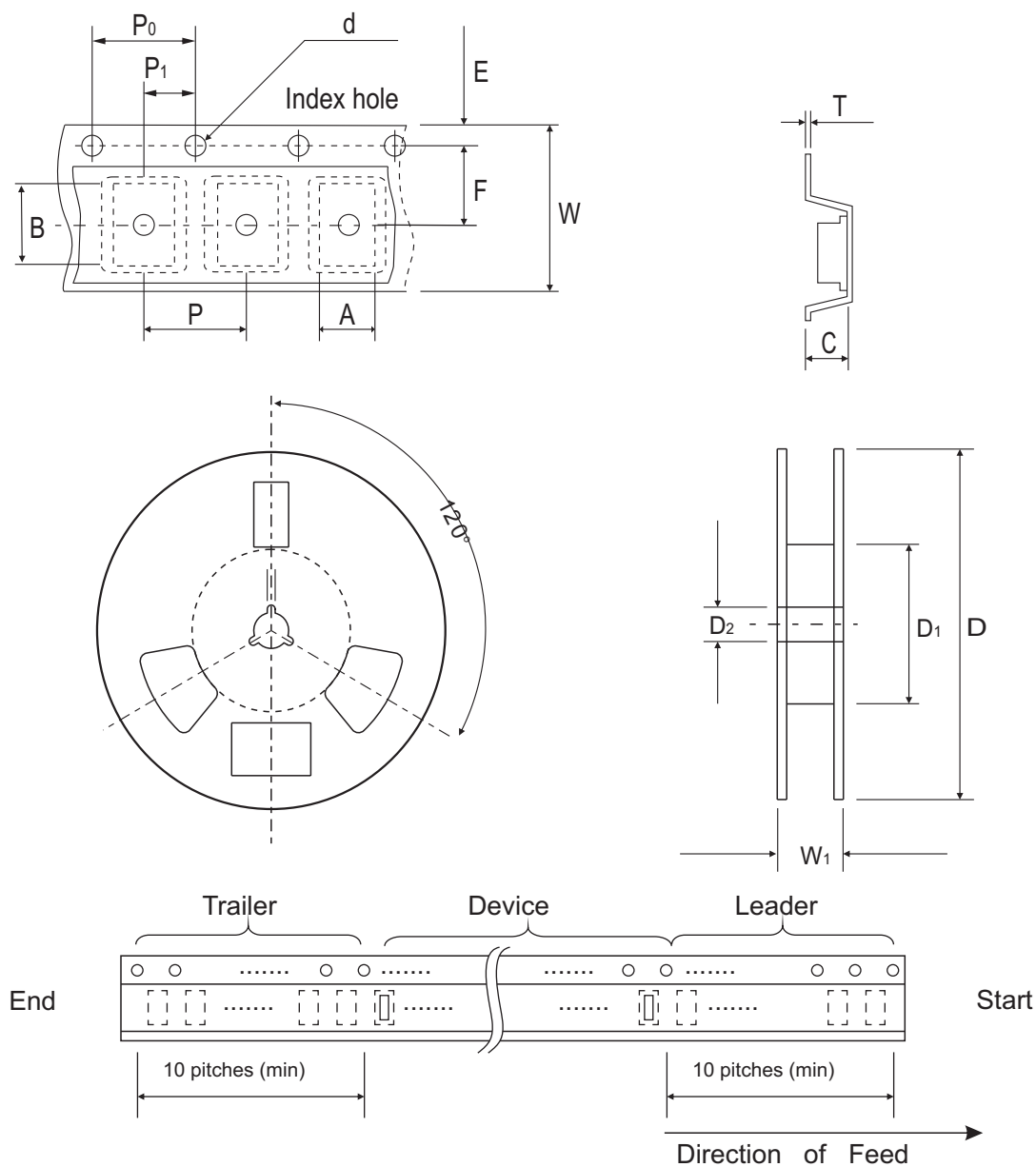


Fig. 4 - Power rating derating curve



Reel Taping Specification



SOD-123F	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.90 ± 0.10	3.80 ± 0.10	1.05 ± 0.10	1.55 ± 0.10	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.075 ± 0.004	0.150 ± 0.004	0.041 ± 0.004	0.061 ± 0.004	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

SOD-123F	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	0.22 ± 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

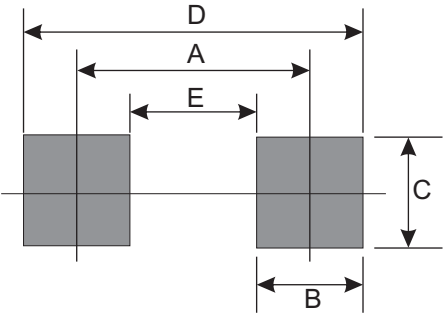
Part Number	Marking Code
CPDK5V0	E05
CPDK12V	E12
CPDK24V	E24



xxx = Product type marking code

Suggested PAD Layout

SIZE	SOD-123F	
	(mm)	(inch)
A	3.45	0.136
B	1.30	0.051
C	1.60	0.063
D	4.75	0.187
E	2.15	0.085



Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
SOD-123F	4,000	7