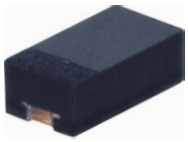
SMD ESD Protection Diode

CPDF12V0U-HF

RoHS Device
Halogen Free

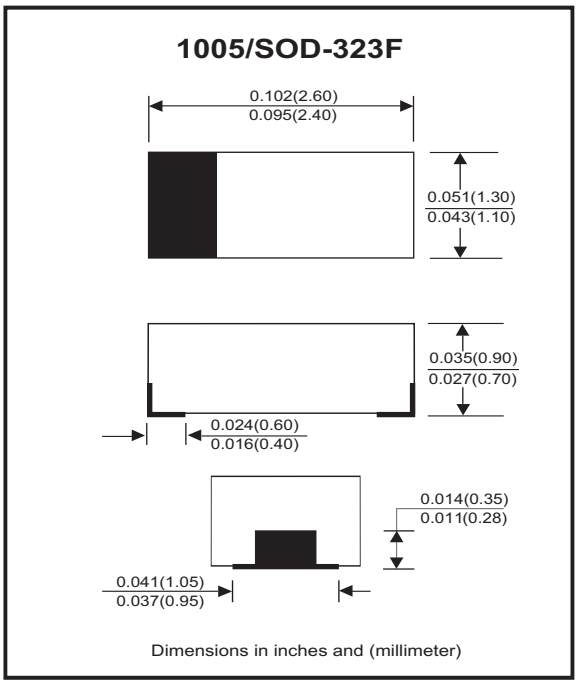


Features

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

Mechanical data

- Case: 1005/SOD-323F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750,method 2026.
- Marking Code: Cathode band & E12
- Mounting position: Any.
- Weight: 0.006 grams(approx.).



Circuit Diagram

Maximum Rating And Electrical Characteristics

(at T_A=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F = 10mA	V_F		0.8		V
Diode breakdown voltage	I_R = 1mA	V_{BD}	13.3	15.5	17.5	V
Leakage current	V_R = 12V	I_L		0.1	1.0	uA
Junction capacitance	V_R = 0V,f = 1MHz	C_T			60	pF
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD			30	kV
Clamping voltage	I_{PP} = 1A,T_P=8/20us I_{PP} = 5A,T_P=8/20us	V_C			19 24	V
Peak pulse power		P_{PP}			120	W
Operation temperature range		T_J	-55		125	°C
Storage temperature range		T_{STG}	-55		150	°C

RATING AND CHARACTERISTIC CURVES (CPDF12V0U-HF)

Fig.1 - 8/20us Peak Pulse Current Wave Form Acc. IEC 61000-4-5

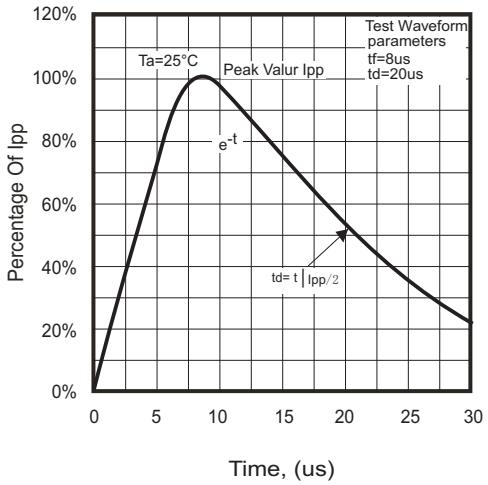


Fig.2 - Power Rating Derating Curve

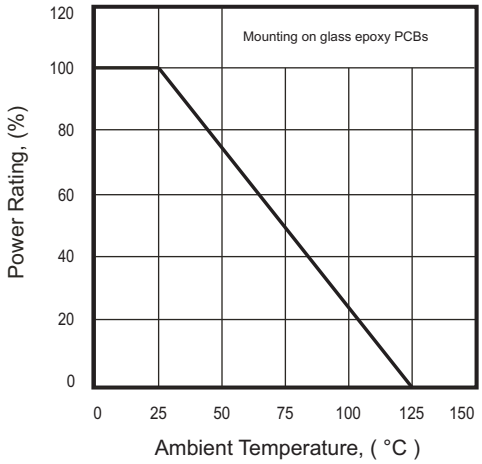


Fig.3 - Clamping Voltage Vs. Peak Pulse Current

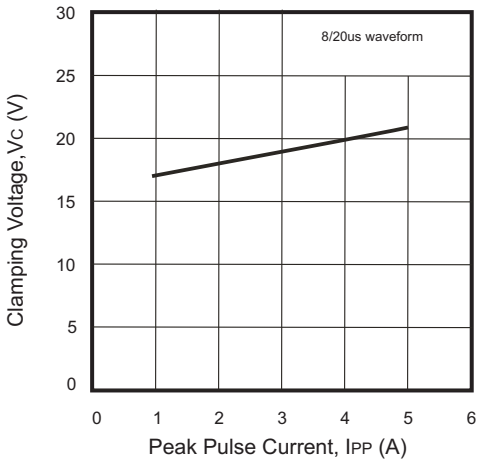


Fig.4 - Clamping Voltage Vs. Forward Peak Pulse Current

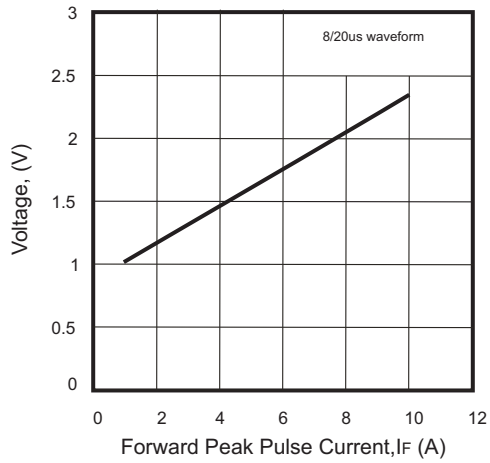
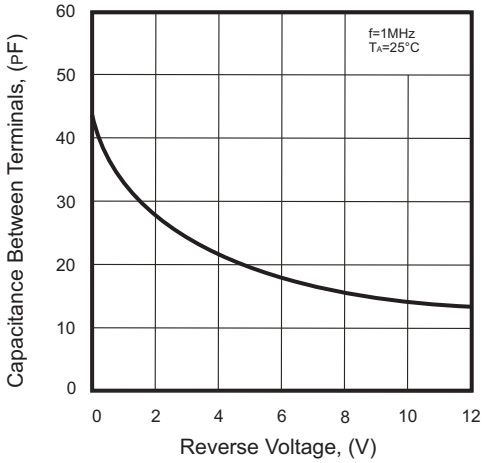
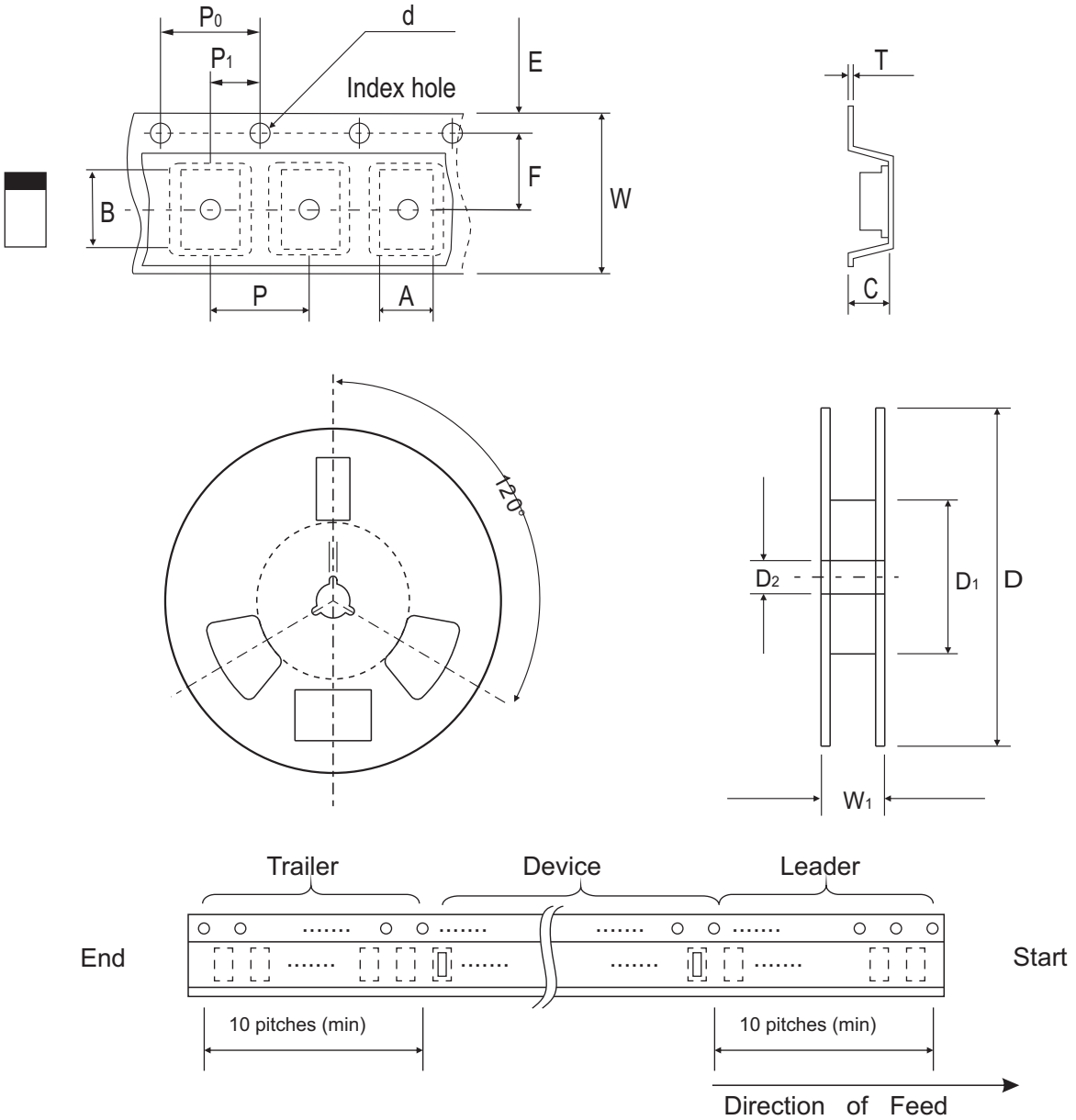


Fig.5 - Capacitance Between Terminals Characteristics



Reel Taping Specification



	SYMBOL	A	B	C	d	D	D_1	D_2
1005 (SOD-323F)	(mm)	1.55 ± 0.10	2.65 ± 0.10	1.05 ± 0.10	1.55 ± 0.05	178 ± 1.0	60.0 MIN.	13.00 ± 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

	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
1005 (SOD-323F)	(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 ± 0.002	0.009 ± 0.002	0.315 ± 0.008	0.531 MAX.