ACPDUC5V0C-HF

RoHS Device
Halogen Free



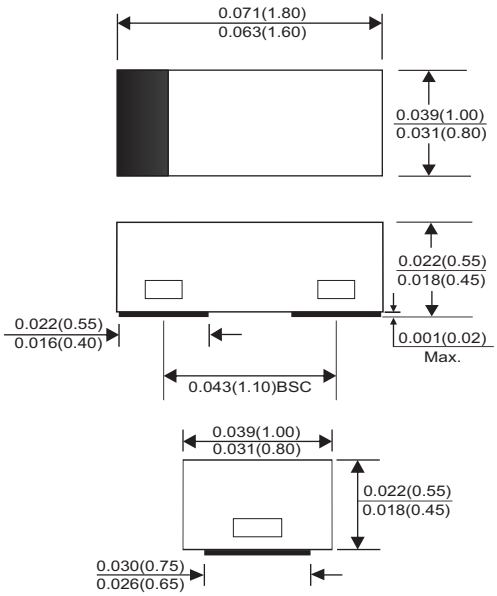
Features

- Bi-directional ESD protection.
- IEC61000-4-2 Level 4 ESD protection.
- Surface mount package.
- Ultra small SMD package.
- Comply with AEC-Q101

Mechanical data

- Case: 0603C/SOD-523F standard package, molded plastic.
- Terminals: Matte tin plated, solderable per MIL-STD-750, method 2026.
- Mounting position: Any.
- Weight: 0.003 grams(approx.).

0603C/SOD-523F



Dimensions in inches and (millimeter)

Circuit diagram



Maximum Rating (at T_A=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	T_P = 8/20us	P_{PP}	68	W
Peak pulse current	T_P = 8/20us	I_{PP}	4	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	±15 ±8	kV
Operation temperature range		T_j	-55~+125	°C
Storage temperature range		T_{STG}	-55~+150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Working peak reverse voltage		V_{RWM}			5	V
Breakdown voltage	I_T = 1mA	V_{BR}	6.1	7.0		V
Reverse leakage current	V_{RWM} = 5V	I_R		0.1	2.0	uA
Clamping voltage	I_{PP} = 1A, T_P = 8/20us I_{PP} = 4A, T_P = 8/20us	V_C			10 17	V
Junction capacitance	V_R = 0V, f = 1MHz	C_J		25	30	pF

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

RATING AND CHARACTERISTIC CURVES (ACPDUC5V0C-HF)

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

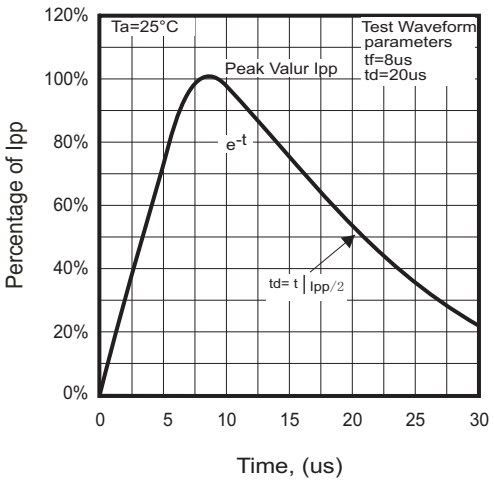


Fig.2 - Typical Capacitance Between Terminals Characteristics

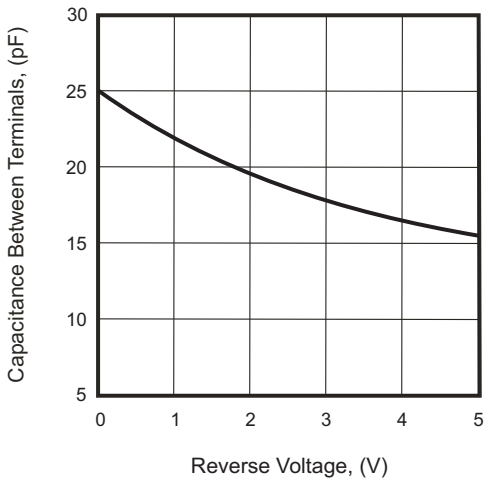


Fig.3 - Clamping Voltage Vs. Peak Pulse Current

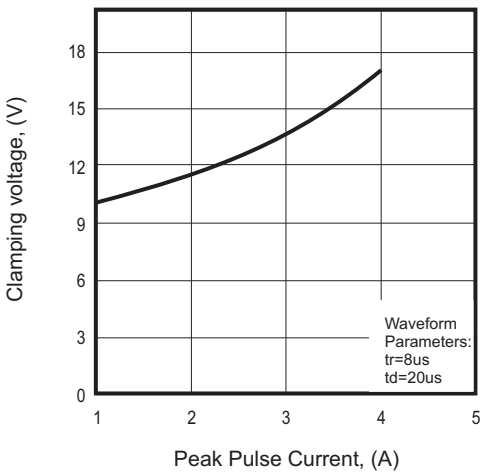
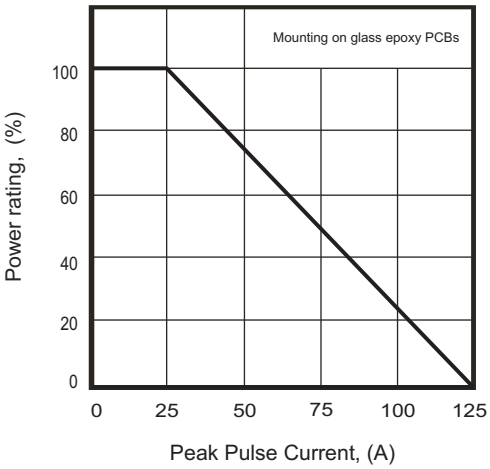
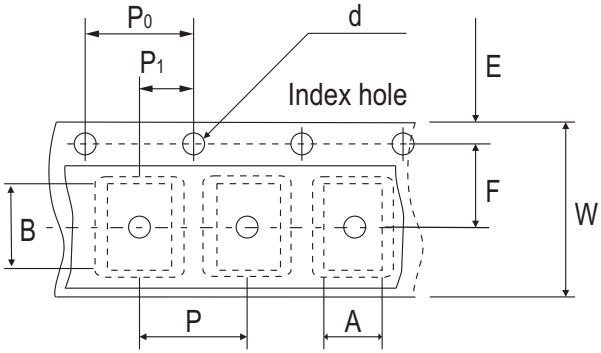
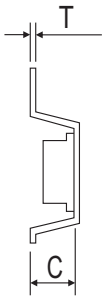


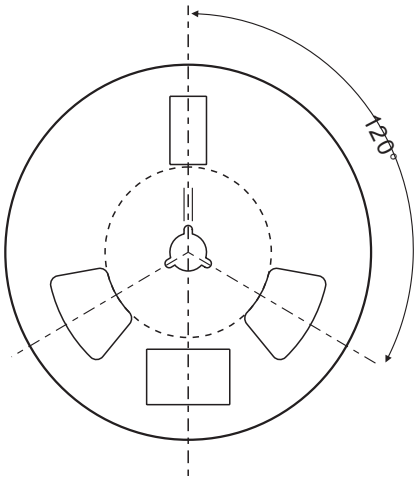
Fig.4 - Power Rating Derating Curve

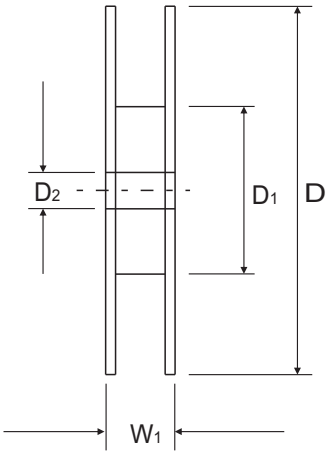


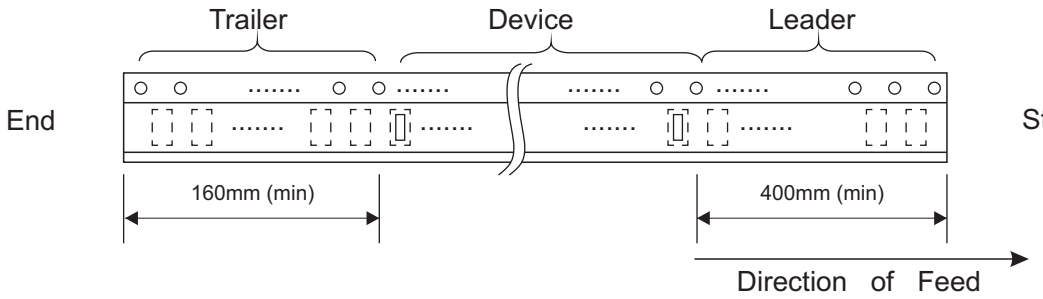
Reel Taping Specification











	SYMBOL	A	B	C	d	D	D_1	D_2
0603C/ SOD-523F	(mm)	1.05 ± 0.05	1.96 ± 0.05	0.57 ± 0.05	1.50 + 0.10 - 0	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.041 ± 0.002	0.077 ± 0.002	0.022 ± 0.002	0.059 + 0.004 - 0	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
0603C/ SOD-523F	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.05	2.00 ± 0.05	0.20 ± 0.03	8.00 ± 0.20	12.00 + 0.50 - 0
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.002	0.079 ± 0.002	0.008 ± 0.001	0.315 ± 0.008	0.472 + 0.020 - 0

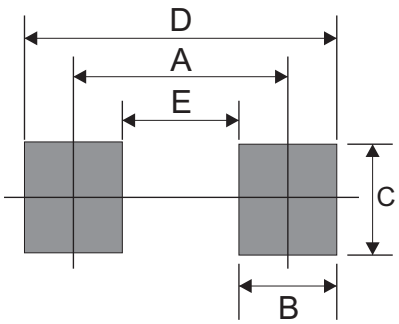
Marking Code

Part Number	Marking Code
ACPDUC5V0C-HF	E05

E05

Suggested PAD Layout

SIZE	0603C/SOD-523F	
	(mm)	(inch)
A	1.10	0.043
B	0.70	0.028
C	1.00	0.039
D	1.80	0.071
E	0.40	0.016



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
0603C/SOD-523F	4,000	7