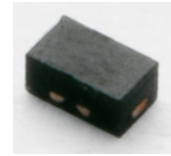


ACPDQC5V0-HF

RoHS Device

Halogen Free



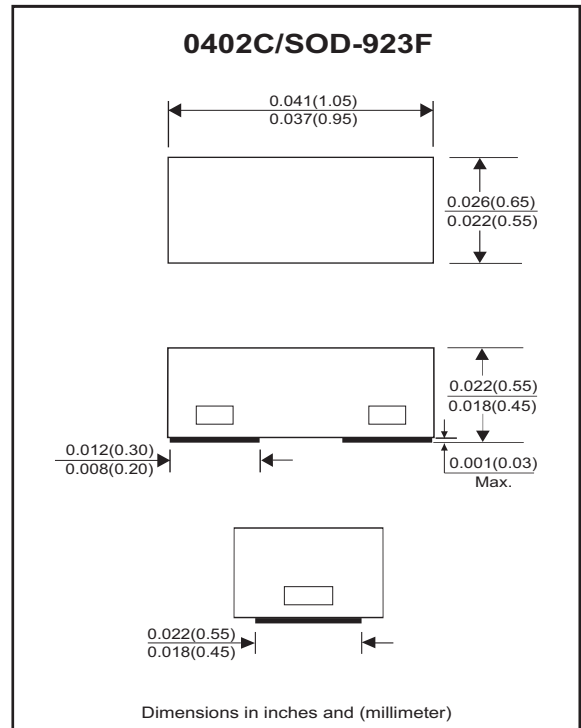
Features

- Bi-directional ESD protection.
- IEC61000-4-2 Level 4 ESD protection.
- Ultra small SMD package:0402.
- Surface mount package.
- High component density.
- Comply with AEC-Q101

Mechanical data

- Case: 0402C/SOD-923F standard package, molded plastic.
- Terminals: Matte tin plated, solderable per MIL-STD-750, method 2026.
- Mounting position: Any.
- Weight: 0.001 gram(approx.).

Circuit diagram



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Diode breakdown voltage	$I_R = 1\text{mA}$	V_{BD}	5.1	7.0		V
Leakage current	$V_R = 5\text{V}$	I_L		0.1	2.0	μA
Junction capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_T		15	20	pF
ESD capability	IEC 61000-4-2(Air)	ESD			16	kV
	IEC 61000-4-2(Contact)	ESD			8	kV
Clamping voltage	$I_{PP} = 5\text{A}$, $T_P = 8/20\mu\text{s}$	V_C			15	V
Peak pulse power	$T_P = 8/20\mu\text{s}$	P_{PP}			75	W
Operation temperature		T_J			125	°C
Storage temperature		T_{STG}	-55		150	°C

RATING AND CHARACTERISTIC CURVES (ACPDQC5V0-HF)

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

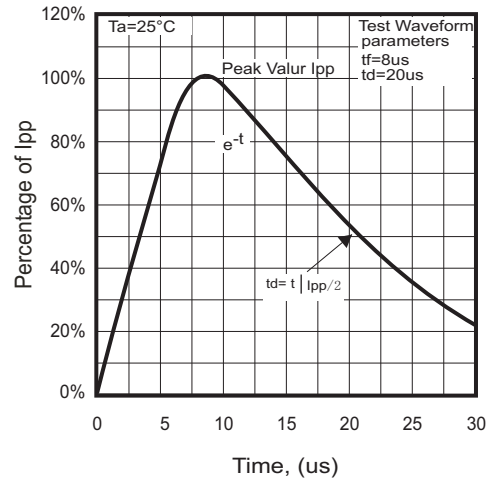


Fig. 2 - Reverse Characteristics

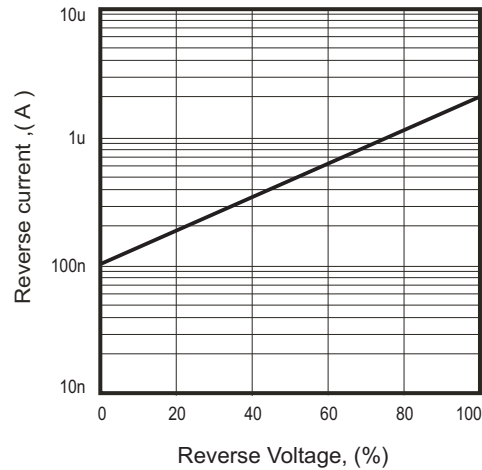


Fig. 3 - Capacitance Between
Terminals Characteristics

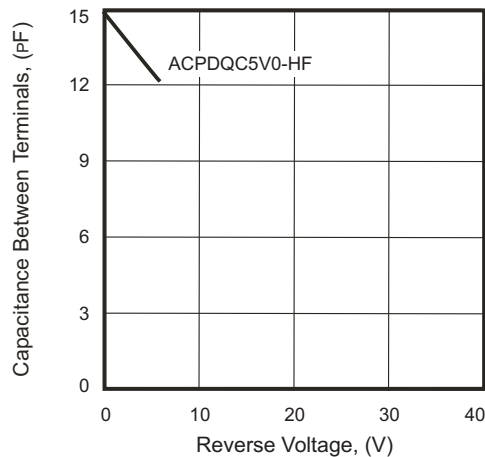
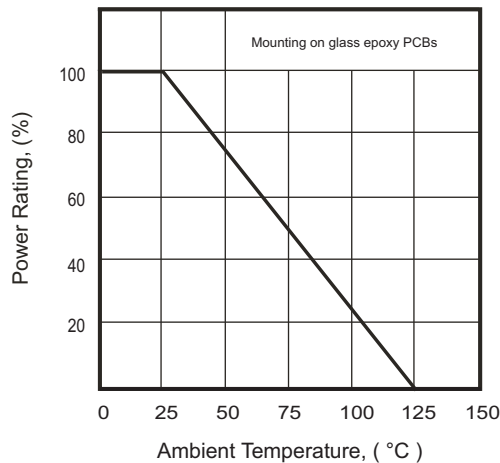
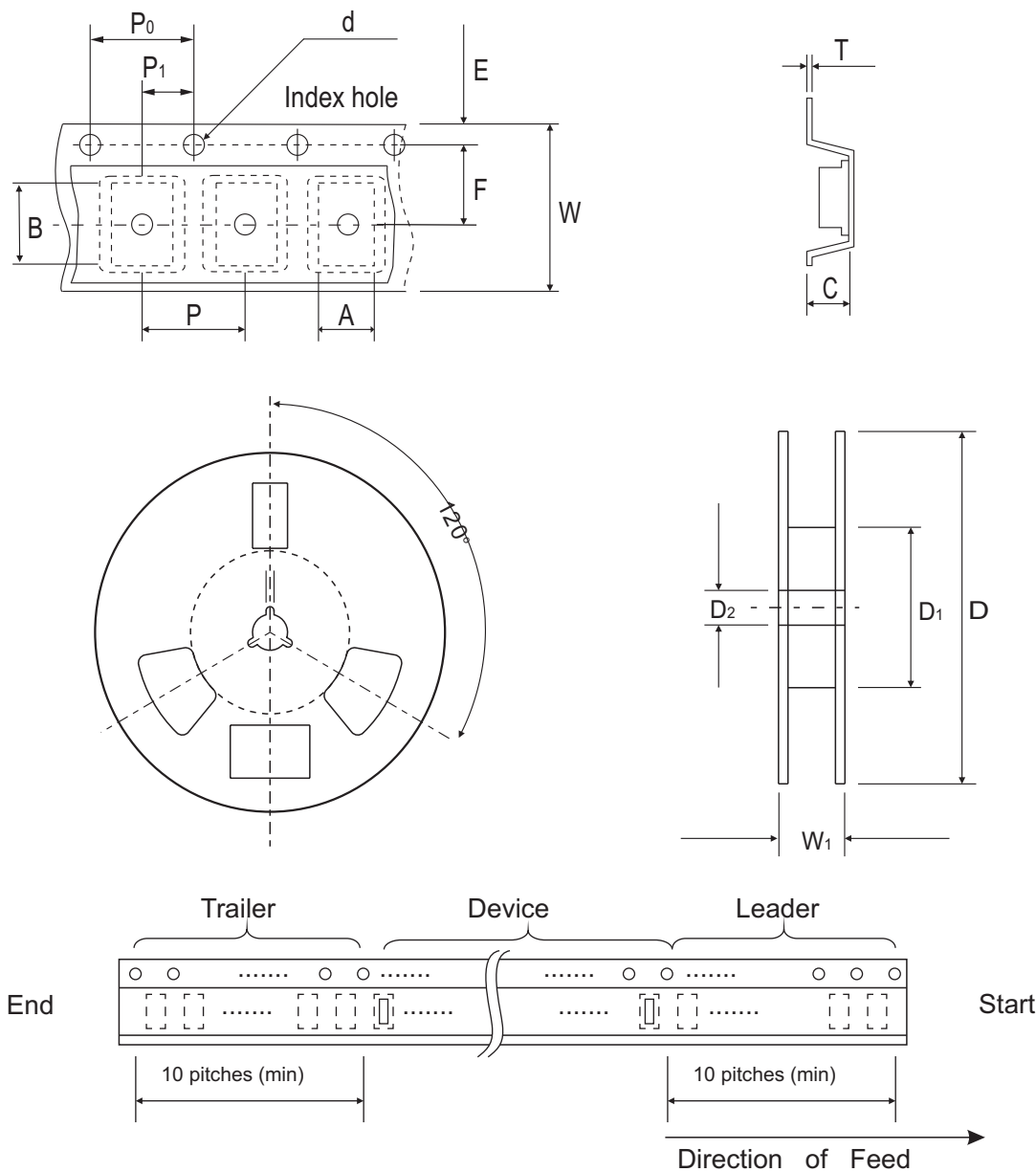


Fig. 4 - Power Rating Derating Curve



Reel Taping Specification



0402C/ SOD-923F	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	0.75 ± 0.10	1.15 ± 0.10	0.60 ± 0.10	1.55 ± 0.10	178 ± 1.00	60.0 MIN.	13.0 ± 0.20
	(inch)	0.030 ± 0.004	0.045 ± 0.004	0.024 ± 0.004	0.061 ± 0.004	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

0402C/ SOD-923F	SYMBOL	E	F	P	P ₀	P ₁	T	W	W
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.22 ± 0.05	8.00 ± 0.20	13.50 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

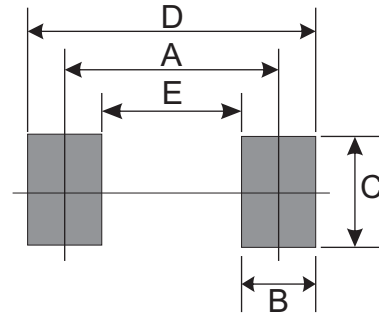
Part Number	Marking Code
ACPDQC5V0-HF	E5



xx = Product type marking code

Suggested PAD Layout

SIZE	0402C/SOD-923F	
	(mm)	(inch)
A	0.70	0.028
B	0.40	0.016
C	0.70	0.028
D	1.10	0.043
E	0.30	0.012



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
0402C/SOD-923F	5,000	7