

ACPDQC5V0CSP-IPHF

High-Reliability and High-Performance

RoHS Device

Halogen Free



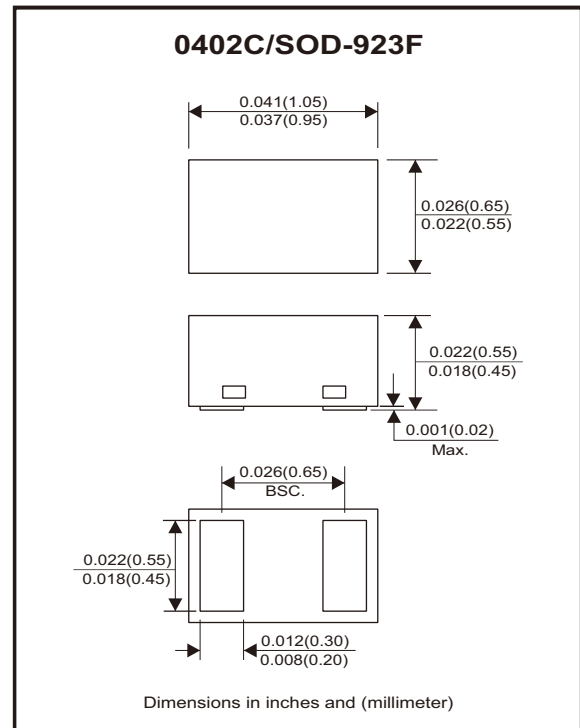
Features

- IEC61000-4-2 (ESD) ± 10 kV.
- Working voltage: 5V
- Typical capacitance: 0.15 pF
- AEC-Q101 Qualified.

Mechanical data

- Case: 0402C/SOD-923F small outline plastic package. molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026
- Mounting position: Any.
- High temperature soldering guaranteed: 260°C/10 second.
- Weight: 0.001 grams (approx.).

Circuit Diagram



Maximum Rating (at $T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power ($t_p = 8/20\mu\text{s}$ waveform)	PPp	38	W
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	V _{ESD}	± 10	kV
Operating temperature range	T _J	-55 to +150	°C
Storage temperature range	T _{STG}	-55 to +150	°C

Electrical Characteristics (at $T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		V _{RWM}	-	-	5	V
Reverse leakage current	V _R = 5 V	I _R	-	-	100	nA
Reverse breakdown voltage	I _R = 1 mA	V(BR)	7	-	10	V
Clamping voltage	I _{PP} = 1 A	V _C	-	-	15	V
	I _{PP} = 2 A	V _C	-	-	19	V
Junction capacitance	V _R = 0V , F = 1MHz	C _J	-	0.15	0.25	pF

RATING AND CHARACTERISTIC CURVES (ACPDQC5V0CSP-IPHF)

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

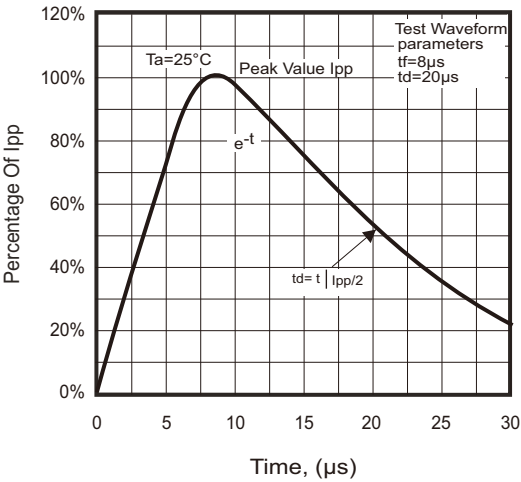


Fig.2 - Power Rating Derating Curve

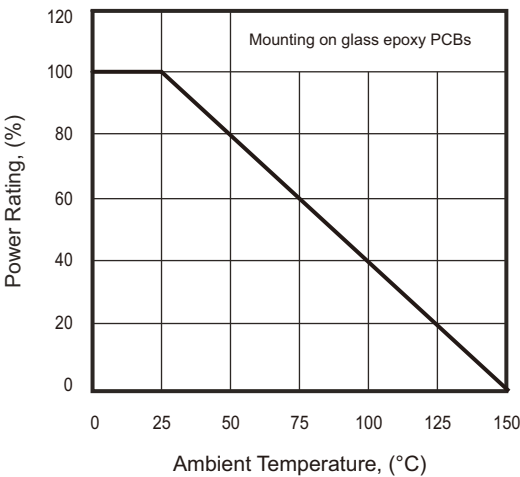


Fig.3 - Typical Clamping Voltage
Vs. Peak Pulse Current

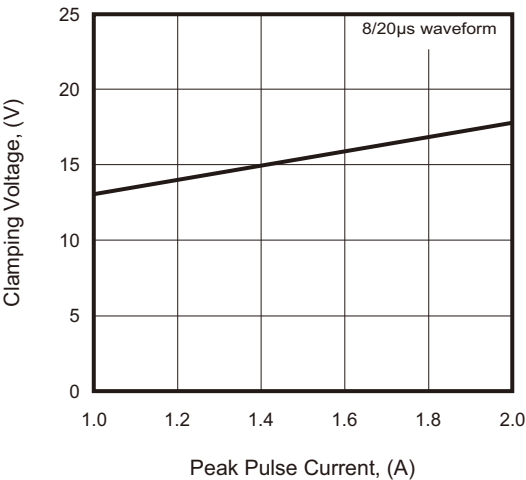
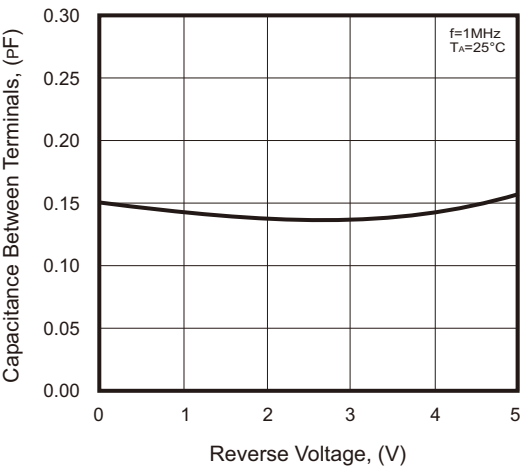
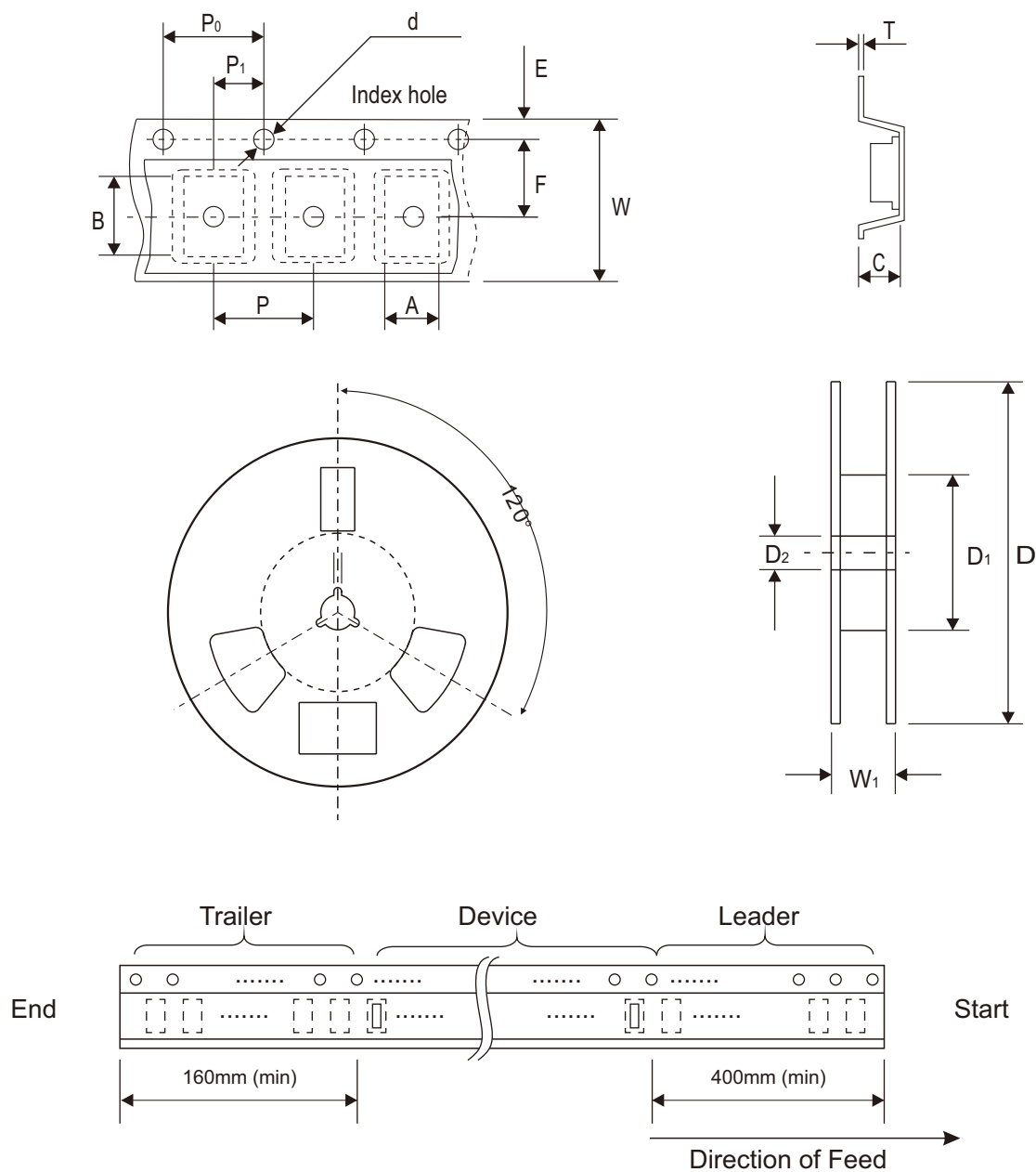


Fig.4 - Typical Capacitance Between
Terminals Characteristics



Reel Taping Specification



0402C (SOD-923F)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	0.75 ± 0.05	1.17 ± 0.05	0.65 ± 0.05	1.50 + 0.10 - 0	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.030 ± 0.002	0.046 ± 0.002	0.026 ± 0.002	0.059 + 0.004 - 0	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

0402C (SOD-923F)	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.20 + 0.02 - 0.05	8.00 ± 0.20	12.00 + 0.50 - 0
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.008 + 0.001 - 0.002	0.315 ± 0.008	0.472 + 0.020 - 0

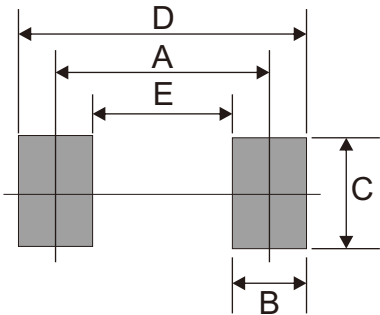
Marking Code

Part Number	Marking Code
ACPDQC5V0CSP-IPHF	5S



Suggested PAD Layout

SIZE	0402C/SOD-923F	
	(mm)	(inch)
A	0.70	0.028
B	0.40	0.016
C	0.60	0.024
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