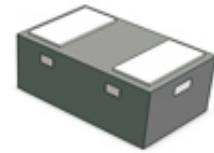


## CPDQC5V0CSP-IPHF

### High-Reliability and High-Performance

### RoHS Device

### Halogen Free



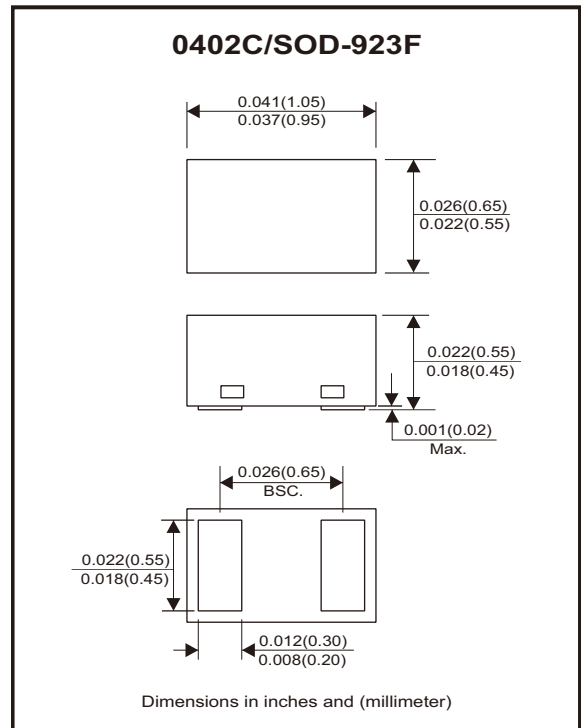
#### Features

- IEC61000-4-2 (ESD)  $\pm 10$ kV.
- Working voltage: 5V
- Typical capacitance: 0.15pF

#### 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 TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power ( tp = 8/20μs waveform)	PPP	38	W
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	VESD	$\pm 10$	kV
Operating temperature range	TJ	-55 to +150	°C
Storage temperature range	TSTG	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		VRWM	-	-	5	V
Reverse leakage current	VR = 5 V	IR	-	-	100	nA
Reverse breakdown voltage	IR = 1 mA	V(BR)	7	-	10	V
Clamping voltage	IPP= 1 A	Vc	-	-	15	V
	IPP= 2 A	Vc	-	-	19	V
Junction capacitance	VR= 0V , F=1MHz	CJ	-	0.15	0.25	pF

## Rating and Characteristic Curves (CPDQC5V0CSP-IPHF)

Fig.1 - 8/20 $\mu$ s Peak Pulse Current Wave  
Form Acc. IEC 61000-4-5

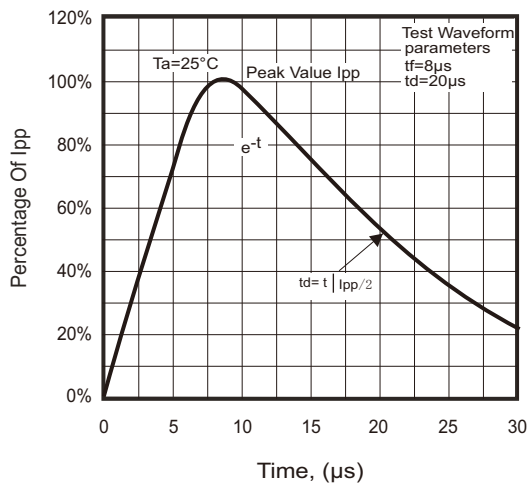


Fig.2 - Power Rating Derating Curve

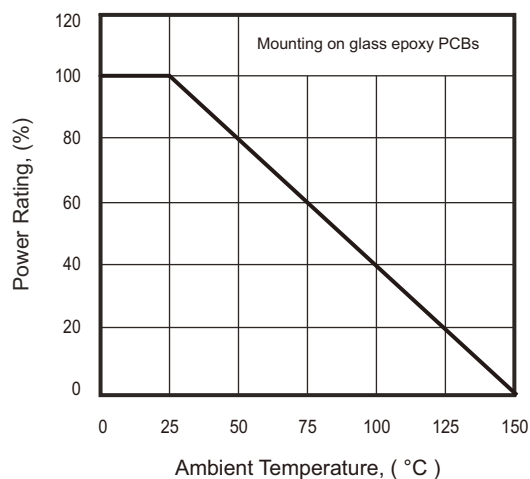


Fig.3 - Typical Clamping Voltage  
Vs. Peak Pulse Current

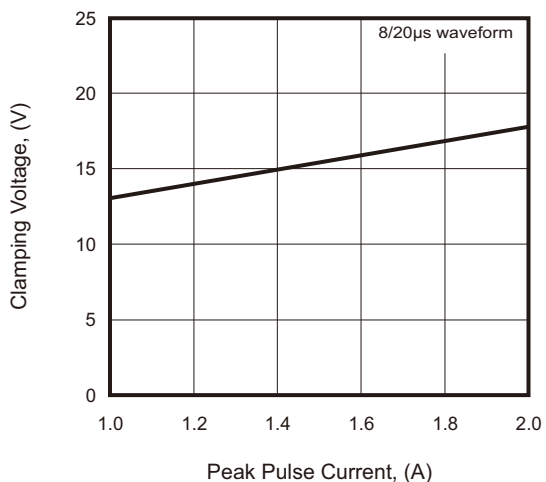
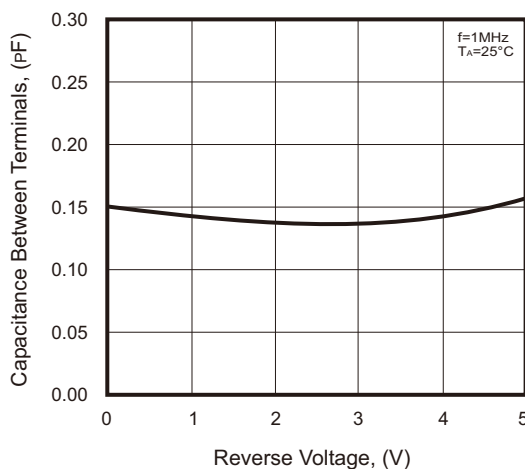
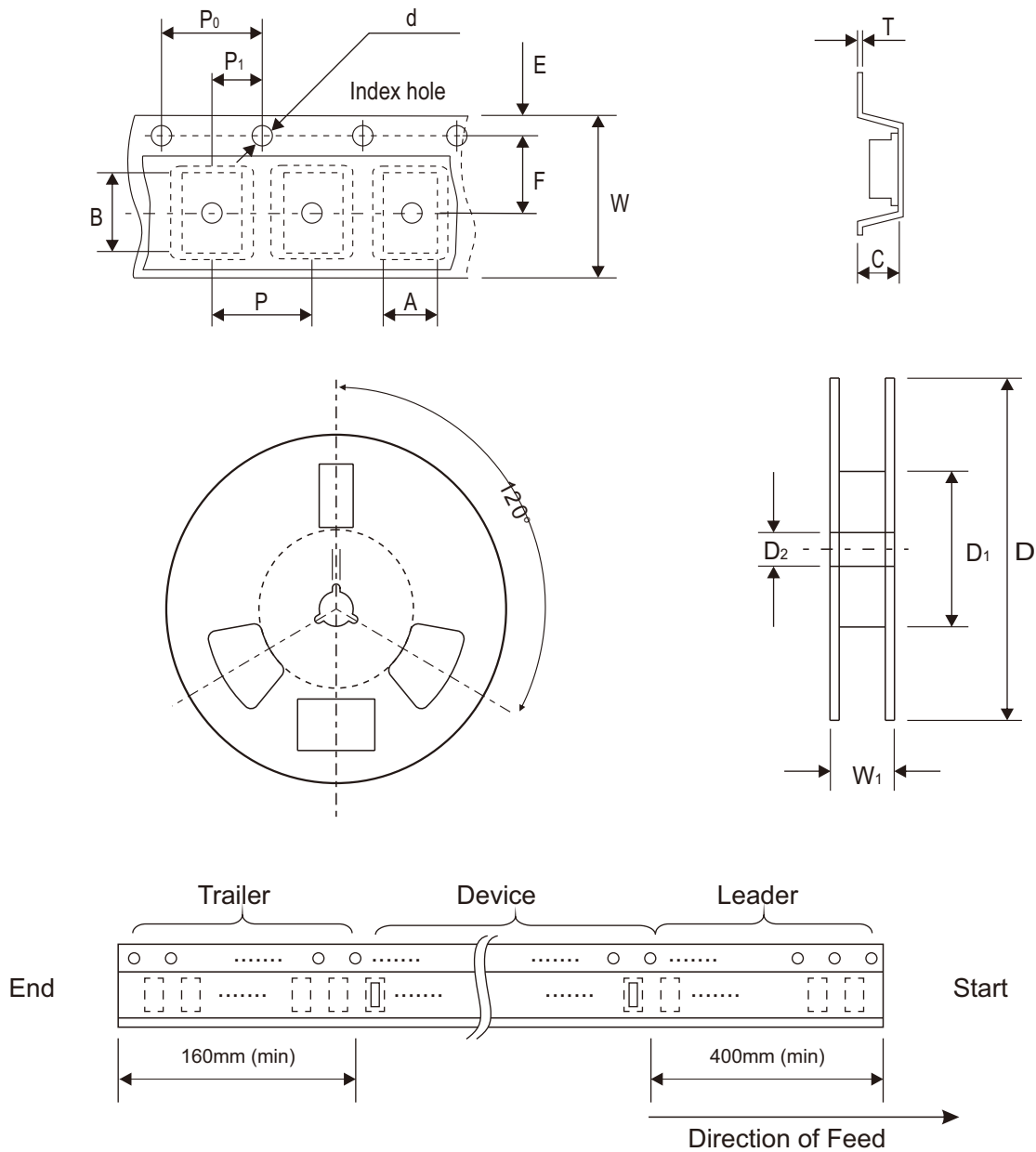


Fig.4 - Typical Capacitance Between  
Terminals Characteristics



## Reel Taping Specification



0402C (SOD-923F)	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(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 <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(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

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

REV:D

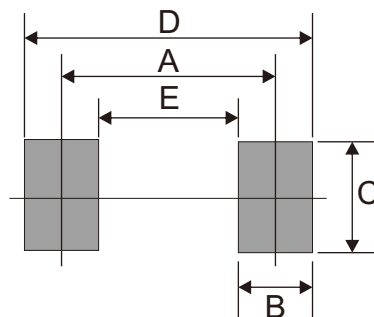
## Marking Code

Part Number	Marking Code
CPDQC5V0CSP-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

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