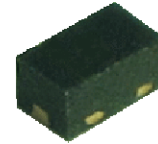


CPDQR5V0SP-HF

RoHS Device
Halogen Free

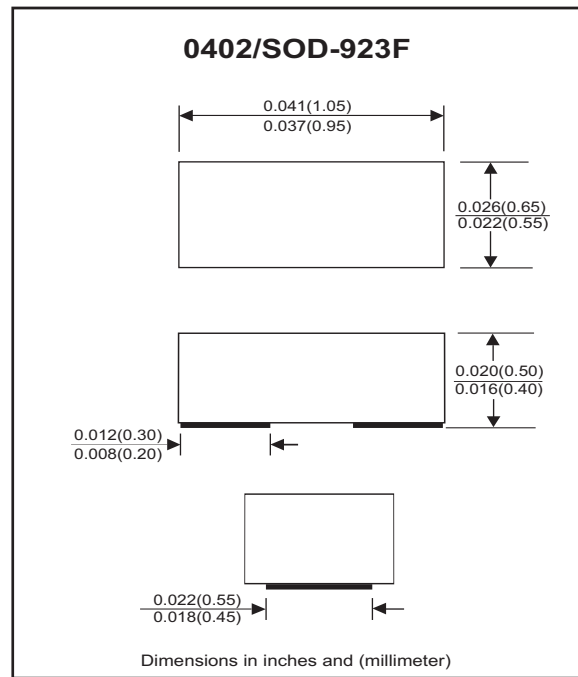


Features

- IEC61000-4-2 (ESD) $\pm 8\text{kV}$ (Contact) , $\pm 15\text{kV}$ (Air).
- IEC61000-4-4 (FET) rating. 40A(5/50 μs)
- IEC61000-4-5 (Lightning) rating. 24A(8/20 μs)
- Protects one bi-directional I/O line
- Working Voltage: 5V
- Typical capacitance: 0.3pF

Mechanical data

- Case: 0402/SOD-923F small outline plastic package. molded plastic.
- Terminals: Matte tin plated, solderable per MIL-STD-202,method 208.
- Mounting position: Any.
- High temperature soldering guaranteed:
260°C/10 second.
- Weight: 0.001 gram(approx.).



Circuit diagram



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

Parameter	Symbol	Value	Unit
Peak pulse current (tp = 8/20 μs waveform)	PPP	120	W
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	VESD	± 17 ± 12	kV
Junction temperature rang	TJ	-55 to +150	°C
Storage temperature rang	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		V _{RWM}	-	-	5	V
Reverse leakage current	V _R = 5 V	I _R	-	-	1	μA
Reverse breakdown voltage	I _R = 1 mA	V _(BR)	6	-	10	V
Clamping voltage	I _{PP} = 1 A	V _C	-	-	12	V
	I _{PP} = 2 A	V _C	-	-	14	V
Junction capacitance	V _R = 0V , F=1MHz	C _J	-	-	0.5	pF

RATING AND CHARACTERISTIC CURVES (CPDQR5V0SP-HF)

Fig. 1 - Non-Repetitive Peak Pulse Power vs. Pulse Time

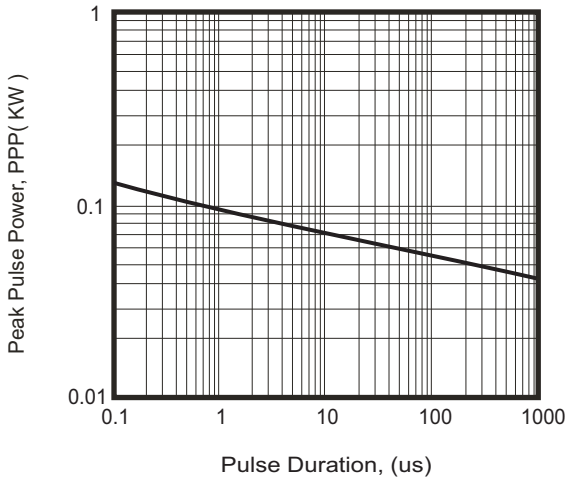


Fig. 2 - Clamping Voltage vs. Peak Pulse Current

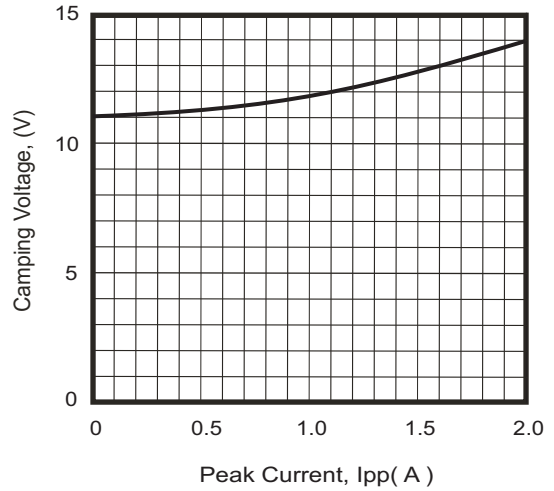


Fig. 3 - Admissible Power Dissipation Curve

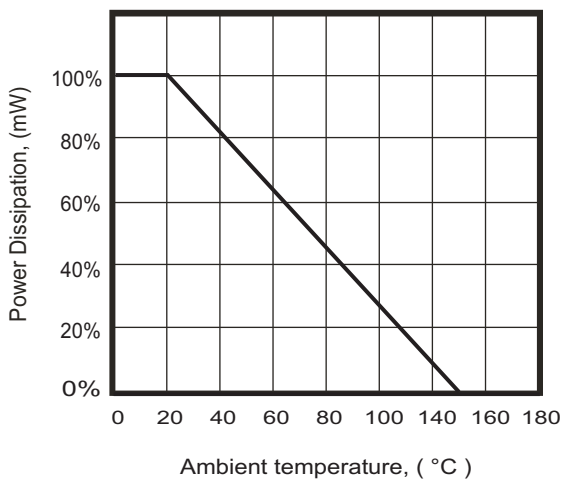


Fig. 4 - Typical Junction Capacitance

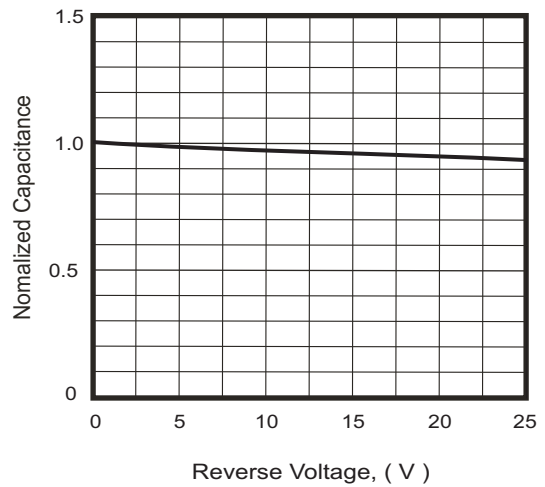
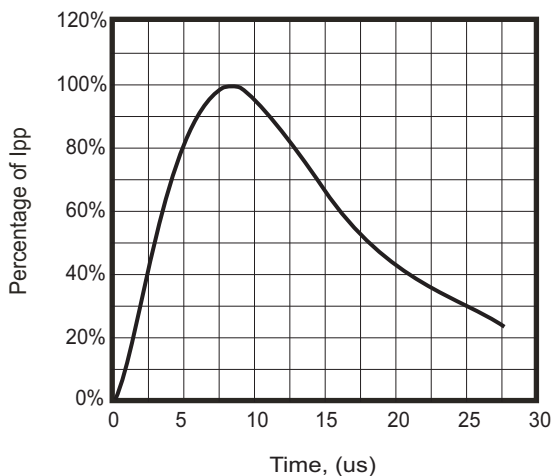
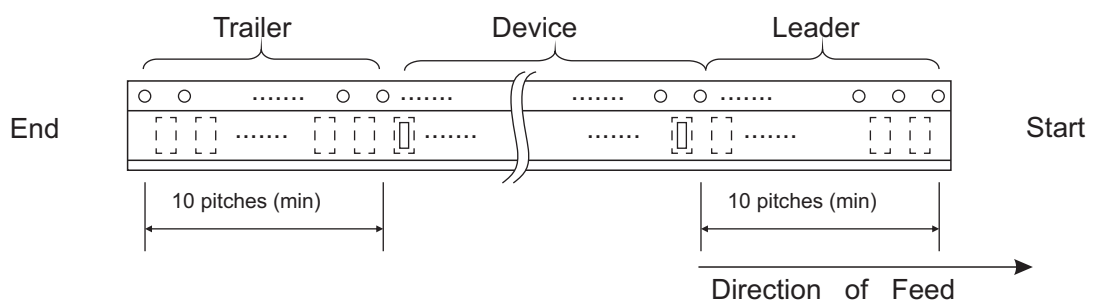
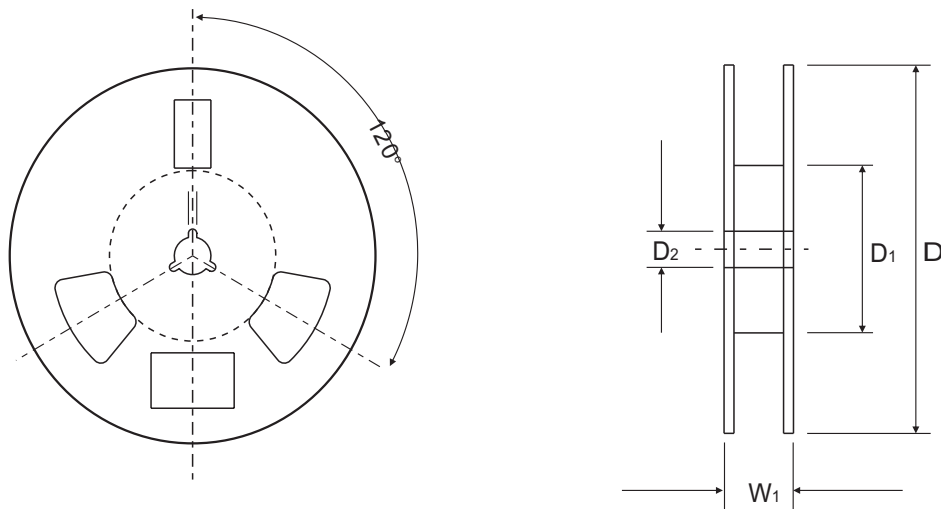
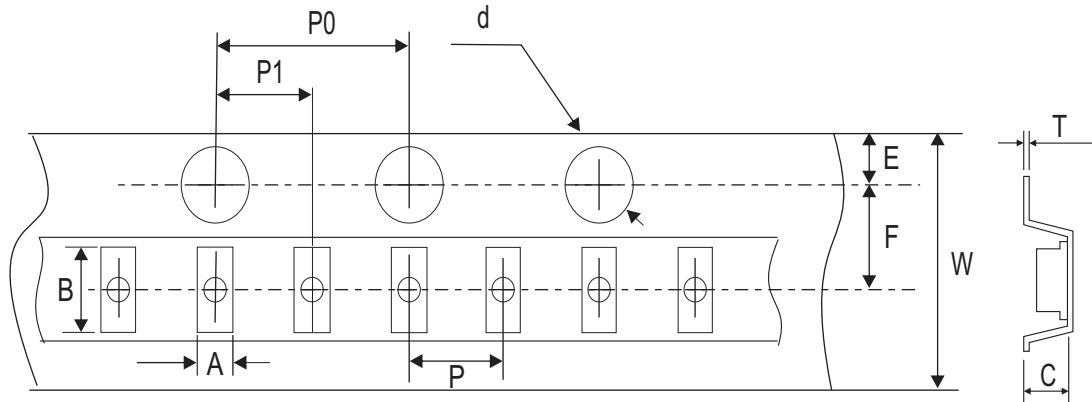


Fig. 5 - Pulse Waveform



Reel Taping Specification



0402 (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 + 0.05	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.030 ± 0.004	0.045 ± 0.004	0.024 ± 0.004	0.061 + 0.002	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

0402 (SOD-923F)	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.05	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	0.079 ± 0.002	0.157 ± 0.004	0.079 ± 0.002	0.009 ± 0.002	0.315 ± 0.008	0.531 MAX.

Marking Code

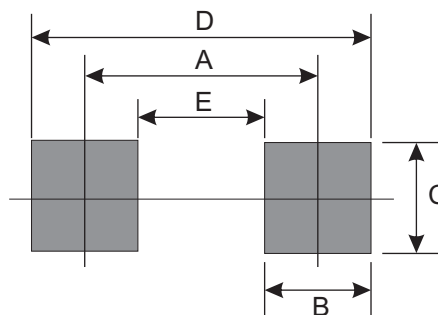
Part Number	Marking Code
CPDQR5V0SP-HF	S



Product type marking code

Suggested PAD Layout

SIZE	0402/SOD-923F	
	(mm)	(inch)
A	0.750	0.030
B	0.500	0.020
C	0.700	0.028
D	1.250	0.049
E	0.250	0.010



Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
0402/SOD-923F	10,000	7