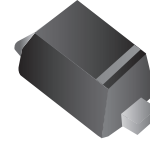


CPDQ5V0-HF

RoHS Device

Halogen Free

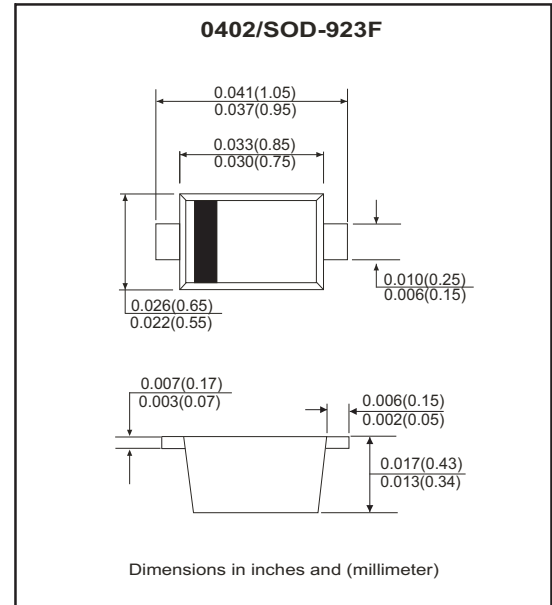


Features

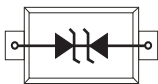
- IEC61000-4-2 Level 4 ESD protection.
- ESD Rating of Class 3 per Human Body Mode.
- Peak Power up to 150 Watts @ 8x20µs Pulse.
- Low Leakage current.
- Response Time is Typically <1ns
- Working Voltage: 5V

Mechanical data

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



Circuit Diagram



Maximum Rating and Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified, VF=0.9V Max. @ IF=10mA)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Maximum working Peak Reverse Voltage		VRWM			5.0	V
Maximum diode breakdown voltage	IR = 1mA	VBR	5.6			V
Maximum reverse leakage current	VR = 5V	IR			1.0	µA
Junction capacitance	VR = 0V, f = 1MHz	CT		15		pF
ESD capability	IEC 61000-4-2(air)	ESD			15	kV
	IEC 61000-4-2(Contact)	ESD			8	kV
Clamping Voltage	I _{PP} = 5 A, tp=8/20us	V _c			11.6	V
	I _{PP} = 9.4 A, tp=8/20us	V _c			18.6	V
Peak Pulse Power	TP=8/20us	PPP			174	W
Junction temperature		T _j			150	°C
Operation temperature		T _{OP}	-40		125	°C
Storage temperature		T _{STG}	-55		150	°C

NOTES:

1. Surge current waveform per Fig.1
2. VBR is measured with a pulse test current IR at an ambient temperature of 25°C.

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

REV:B

RATING AND CHARACTERISTIC CURVES (CPDQ5V0-HF)

Fig. 1 - Pulse Waveform

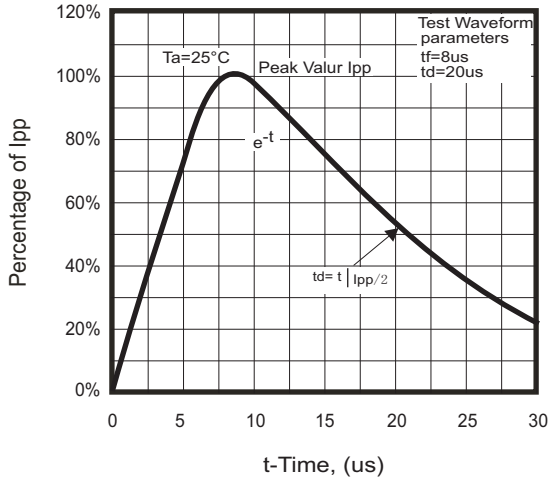
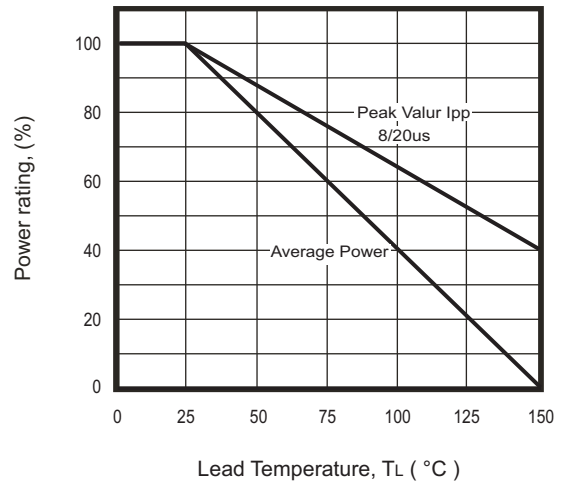
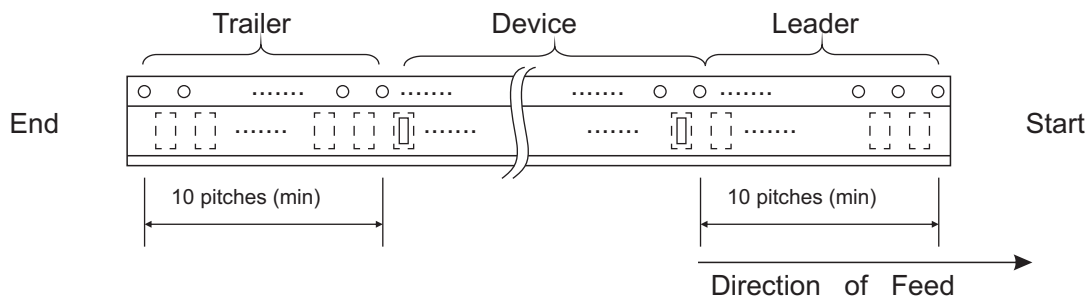
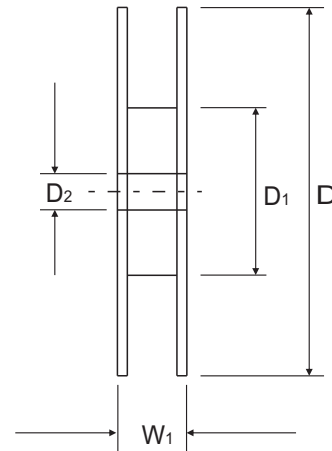
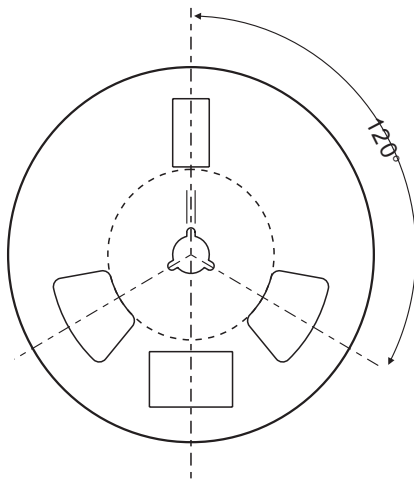
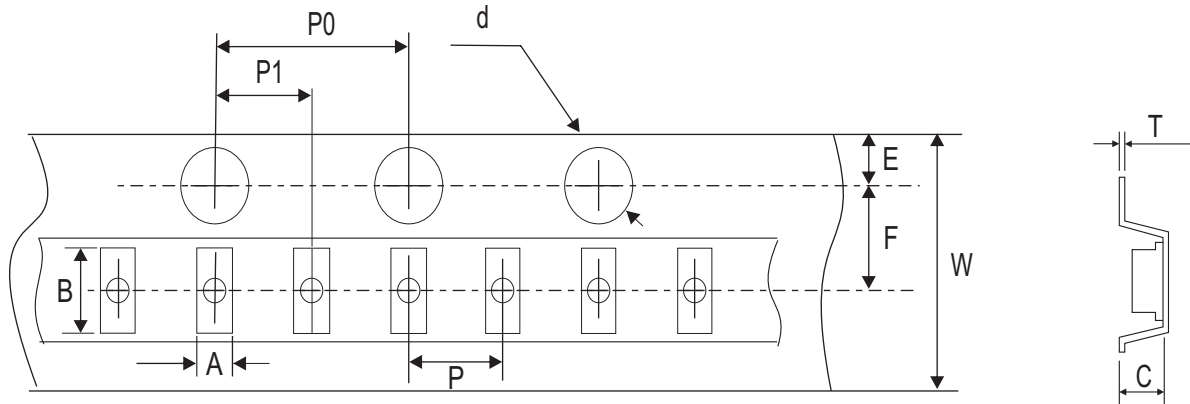


Fig. 2 - Power Derating Curve



Reel Taping Specification



0402 (SOD-923F)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	0.70 ± 0.05	1.12 ± 0.05	2.40 mm	1.50 + 0.10	178 MAX.	50.0 MIN.	13.0 ± 0.50
	(inch)	0.028 ± 0.002	0.044 ± 0.002	0.094 mm	0.059 + 0.004	7.008 MAX.	1.969 MIN.	0.512 ± 0.020

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	0.229 ± 0.020	8.00 + 0.30 / - 0.10	10.90 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.002	0.157 ± 0.004	0.079 ± 0.002	0.009 ± 0.001	0.314 + 0.012 / - 0.004	0.43 MAX.

Marking Code

Part Number	Marking Code	
CPDQ5V0-HF	C	C ⌘



Month Code:

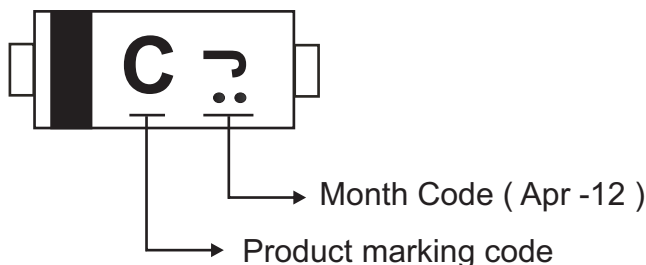
Month	Odd Year (per A. D.)	Even Year (per A. D.)
Jan	1	E
Feb	2	F
Wer	3	H
Apr	4	J
May	5	K
Jun	6	L
Jul	7	N
Aug	8	P
Sep	9	U
Oct	T	X
Nov	V	Y
Dec	C	Z

C: Product marking code

⌘: Month Code

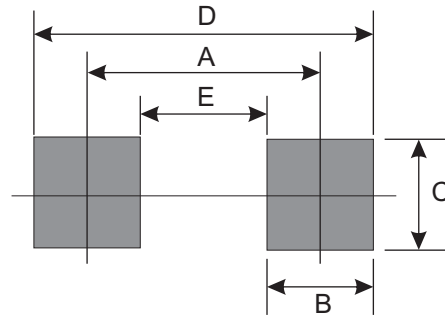
For example as follows:

- Product marking code: C
- Manufacture date_ Year: 2012 (Even year) / Month: Apr
Month code: J (Month code rotated 90° and two dots below the month code.)



Suggested PAD Layout

SIZE	0402/SOD-923F	
	(mm)	(inch)
A	0.900	0.035
B	0.300	0.012
C	0.400	0.016
D	1.200	0.047
E	0.600	0.024



Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
0402/SOD-923F	8,000	7