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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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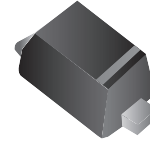
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CPDQ3V3U-HF

RoHS Device
Halogen Free

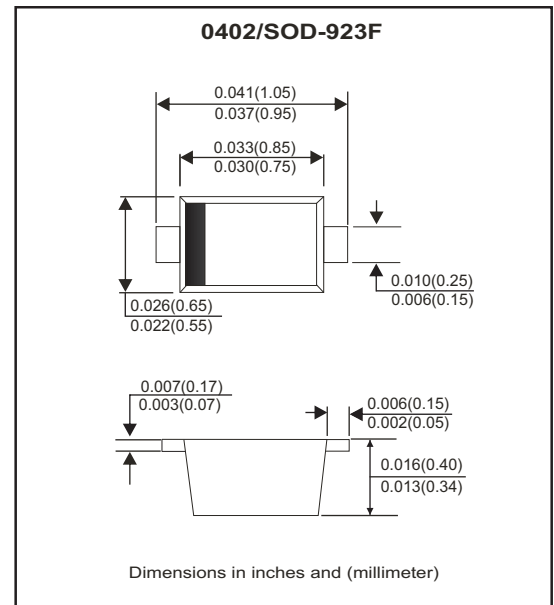


Features

- IEC61000-4-2 Level 4 ESD protection.
- ESD Rating of Class 3(>16kV) per Human Body Mode.
- Low body height: 0.017"(0.43mm)
- Low Leakage

Mechanical data

- Epoxy: Meets UL 94V-0
- Case: 0402/SOD-923F small outline plastic package. molded plastic.
- 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 grams(approx.).



Circuit Diagram

- Pin 1: Cathode
- Pin 2: Anode



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

Parameter	Conditions	Symbol	Value	Unit
Typ. peak pulse power	T _P = 8/20 us	PPP	102	W
Peak pulse current	T _P = 8/20 us	I _{PP}	9.8	A
ESD capability	IEC 61000-4-2(Air)	ESD	±15	kV
	IEC 61000-4-2(Contact)	ESD	±8	kV
Junction temperature rang		T _J	-55 to +150	°C
Storage temperature rang		T _{STG}	-55 to +150	°C

Electrical Characteristics

(at $T_A=25^\circ\text{C}$ unless otherwise noted. $V_F=0.9\text{V Max.}@ I_F=10\text{mA}$ for all types)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Working peak reverse voltage		V_{RWM}			3.3	V
Forward voltage	$I_F = 10\text{mA}$	V_F			0.9	V
Breakdown voltage	$I_T = 1\text{mA}$	V_{BR}	5.0			V
Reverse leakage current	$V_{RWM} = 3.3\text{V}$	I_R			2.5	μA
Clamping voltage	$I_{PP} = 9.8\text{A}$, $T_P = 8/20\mu\text{s}$	V_C			10.4	V
Junction capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_J		80		pF

NOTES:

- FR-5= 1.0*0.75*0.62 in.
- Surge current waveform per Figure 3.
- V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C .

RATING AND CHARACTERISTIC CURVES (CPDQ3V3U-HF)

Fig.1 - Typical Breakdown Voltage Versus Temperature

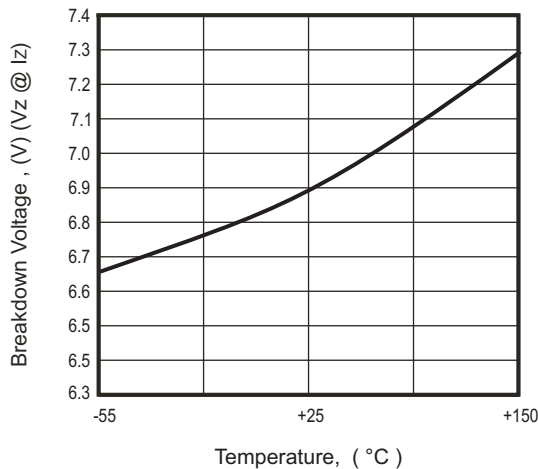


Fig.2 - Typical Leakage Current Versus Temperature

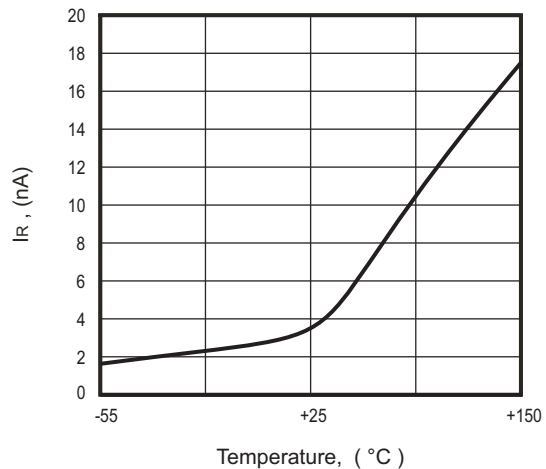
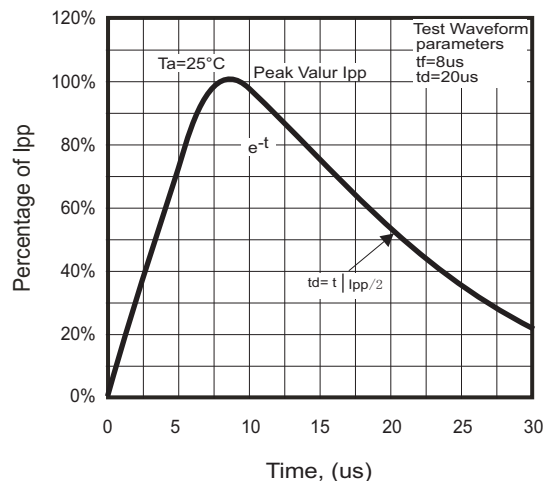
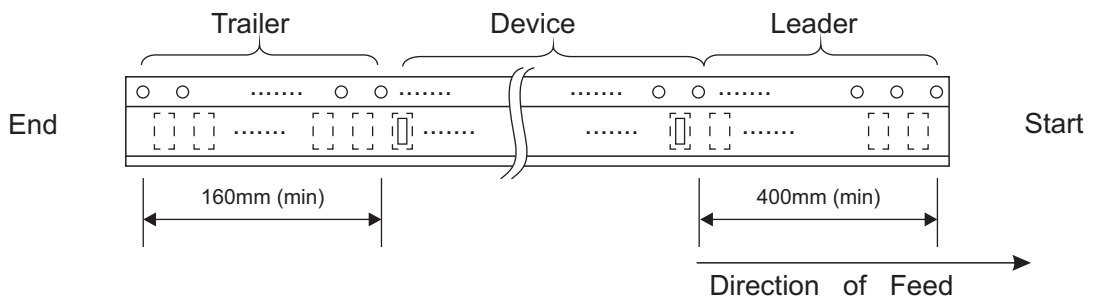
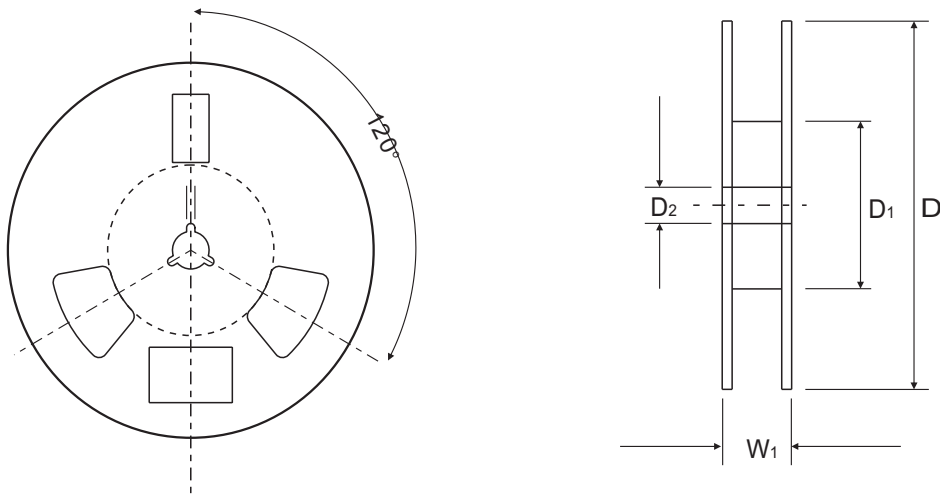
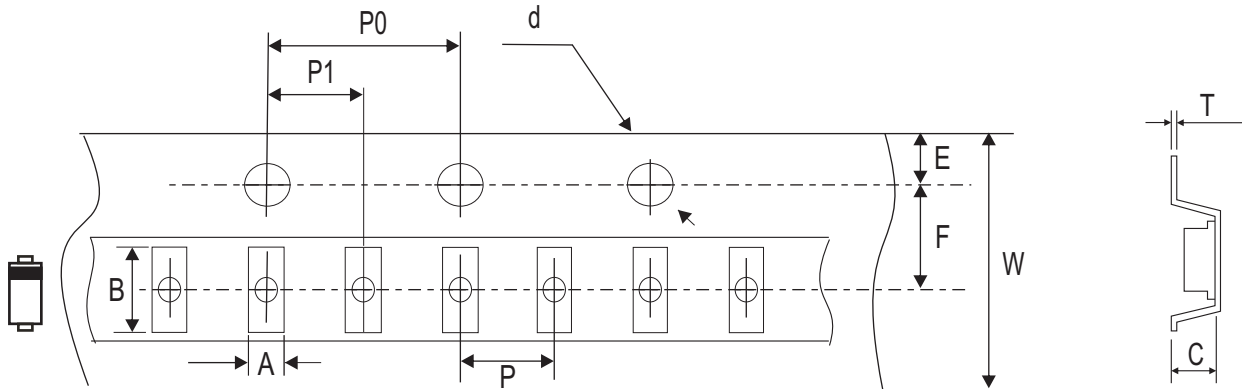


Fig.3 - 8/20us Peak Pulse Current Waveform Acc. IEC 61000-4-5



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	0.48 ± 0.05	1.50 + 0.10 - 0	178.00 Max.	50.00 Min.	13.00 ± 0.50
	(inch)	0.028 ± 0.002	0.044 ± 0.002	0.019 ± 0.002	0.059 + 0.004 - 0	7.008 Max.	1.969 Min.	0.512 ± 0.020

0402 (SOD-923F)	SYMBOL	E	F	P	P ₀	P ₁	T	W	W
	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.05	4.00 ± 0.10	2.00 ± 0.05	0.229 ± 0.02	8.30 Max.	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	0.327 Max.	0.429 Max.

Marking Code

Part Number	Marking Code
CPDQ3V3U-HF	E



E: Product marking code

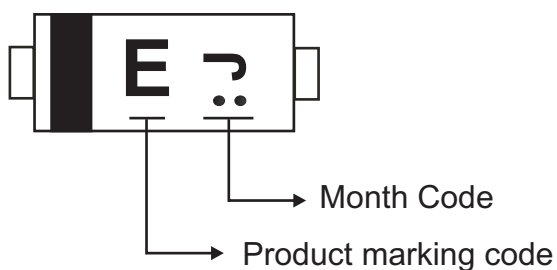
⌘: Month Code

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

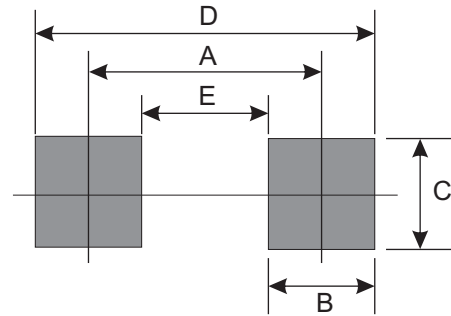
For example as follows:

- Product marking code: E
- 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