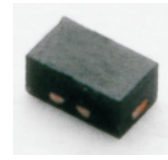


# CPDQT5V0SP-HF

**RoHS Device**  
**Halogen Free**

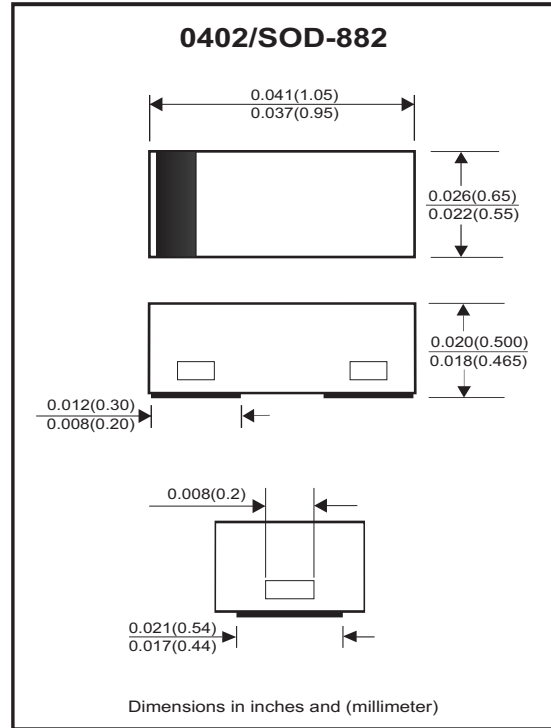


## Features

- IEC61000-4-2 Level 4 ESD protection.
- ESD Rating of Class 3 (>16kV) per Human Body Mode.
- Super low capacitance 0.5 pF
- Low clamping voltage.
- Small body outline dimensions:  
0.039" x 0.024"(1.00mm\*0.6mm)

## Mechanical data

- Epoxy: Meets UL 94V-0
- Case: 0402/SOD-882 small outline plastic package.  
Void-free, Transfer-molded, Thermosetting plastic.
- Lead finish: Ni-Pd-Au
- Mounting position: Any.
- High temperature soldering guaranteed: 260°C/10 second.



## Circuit Diagram



## Maximum Rating and Electrical Characteristics

(at TA=25°C unless otherwise noted, VF=1.0V Max. @ IF=10mA for all types)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Working Peak Reverse Voltage		VRWM			5.0	V
Breakdown voltage	IR = 1mA	VBR	5.4			V
Maximum reverse leakage current	VR = 5V	IR			1.0	µA
Junction capacitance	VR = 0V, f = 1MHz	CT		0.5	0.9	pF
ESD capability	IEC 61000-4-2(air)	ESD			15	kV
	IEC 61000-4-2(Contact)	ESD			10	kV
Clamping Voltage	I <sub>PP</sub> = 1 A, tp=8/20us	Vc			12.9	V
Total power dissipation on FR-5 board (Note 1)	TA=25°C	Pd			150	mW
Junction temperature		Tj	-55		125	°C
Storage temperature		TSTG	-55		150	°C

NOTES: 1. FR-5=1.0\*0.75\*0.62in.  
2. VBR is measured with a pulse test current IR at an ambient temperature of 25°C.  
3. Surge current waveform per Figure1.

**RATING AND CHARACTERISTIC CURVES (CPDQT5V0SP-HF )**

Fig.1- Pulse Waveform

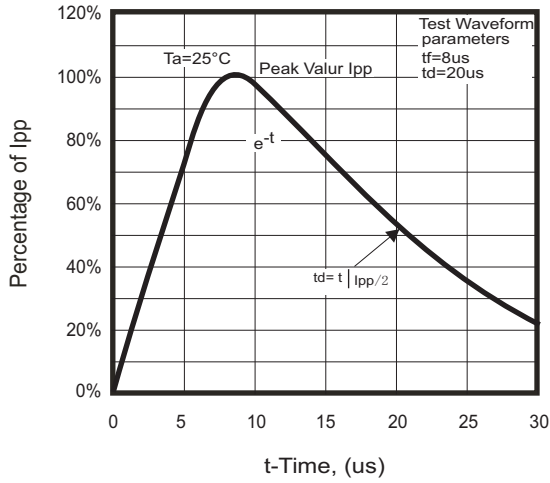
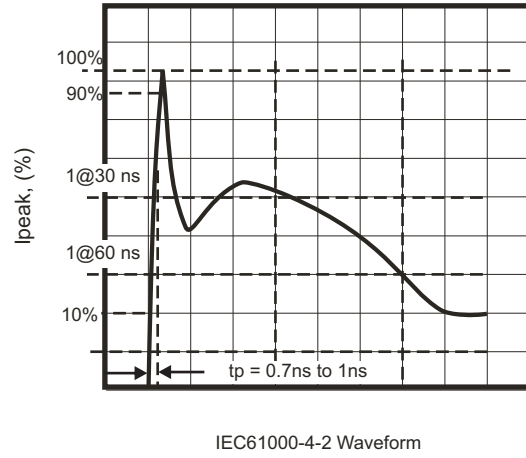
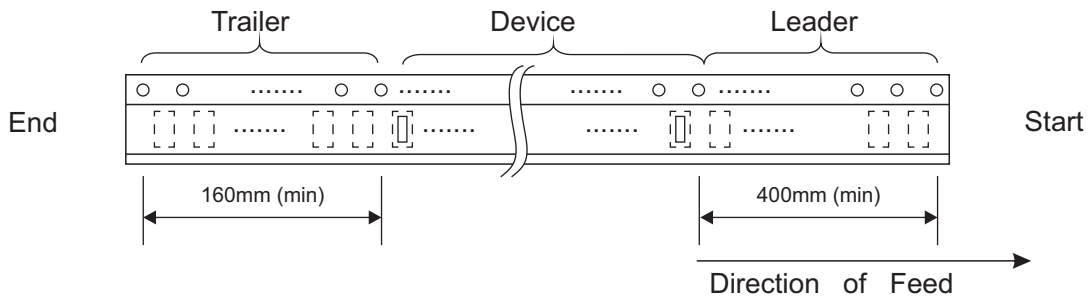
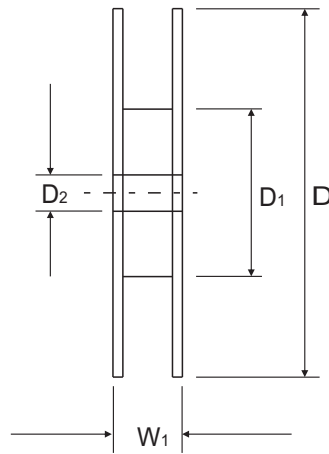
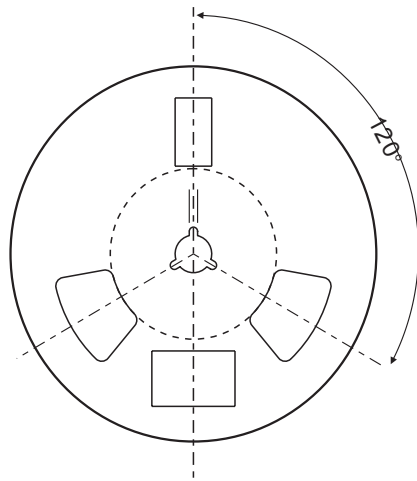
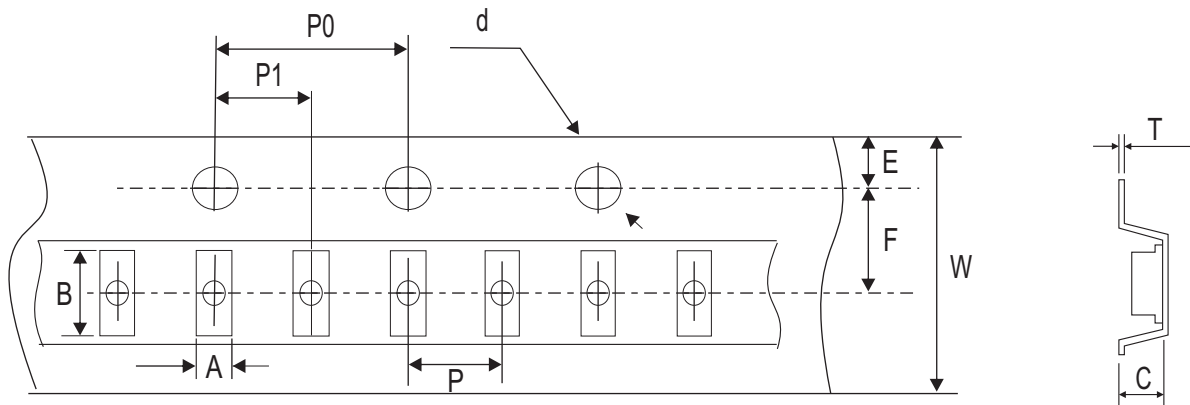


Fig.2 - IEC61000-4-2 Waveform



## Reel Taping Specification



	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
0402 (SOD-882)	(mm)	0.70 ± 0.05	1.12 ± 0.05	0.55 ± 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	0.022 ± 0.002	0.059 + 0.004 - 0	7.008 Max.	1.969 Min.	0.512 ± 0.020

	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W
0402 (SOD-882)	(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.