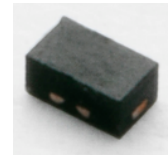


# CPDQT5V0SP-HF

RoHS Device  
Halogen Free

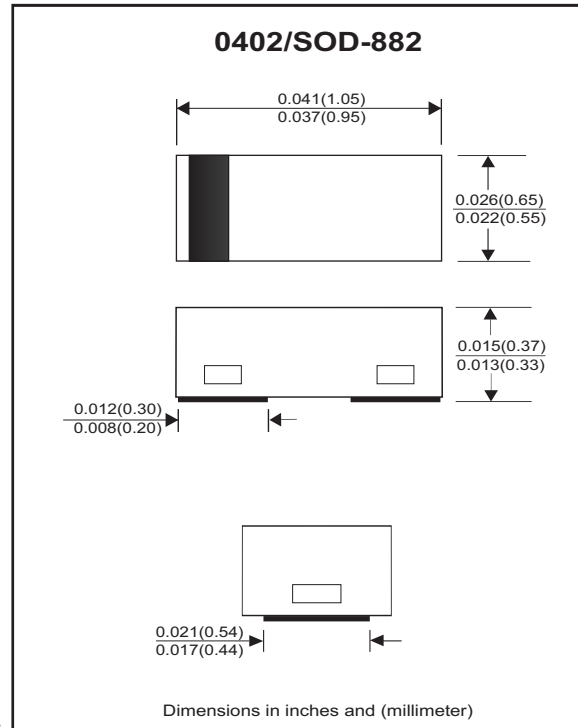


## Features

- IEC61000-4-2 Level 4 ESD protection.
- ESD Rating of Class 3(>16kV) per Human Body Mode.
- Supper low capacitance 0.5 pF
- Low clamping voltage.
- Small body outline dimensions:  
0.039" x 0.024"(1.00mm\*0.6mm)
- Low body height: 0.016"(0.4mm)

## Mechanical data

- Epoxy: Meets UL 94V-0
- Case: 0402/SOD-882 small outline plastic package.  
Void-free, Transfer-molded, Thermosetting plastic.
- Terminals: Matte tin plated, solderable per  
MIL-STD-750,method 2026.
- 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		V <sub>RWM</sub>			5.0	V
Breakdown voltage	I <sub>R</sub> = 1mA	V <sub>BR</sub>	5.4			V
Maximum reverse leakage current	V <sub>R</sub> = 5V	I <sub>R</sub>			1.0	μA
Junction capacitance	V <sub>R</sub> = 0V, f = 1MHz	C <sub>T</sub>		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, t <sub>p</sub> =8/20us	V <sub>c</sub>			12.9	V
Total power dissipation on FR-5 board (Note 1)	T <sub>A</sub> =25°C	P <sub>D</sub>			150	mW
Junction temperature		T <sub>j</sub>	-55		125	°C
Storage temperature		T <sub>STG</sub>	-55		150	°C

NOTES: 1. FR-5=1.0\*0.75\*0.62in.  
2. V<sub>BR</sub> is measured with a pulse test current I<sub>R</sub> at an ambient temperature of 25°C.  
3. Surge current waveform per Figure1.

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

Fig. 1 - Pulse Waveform

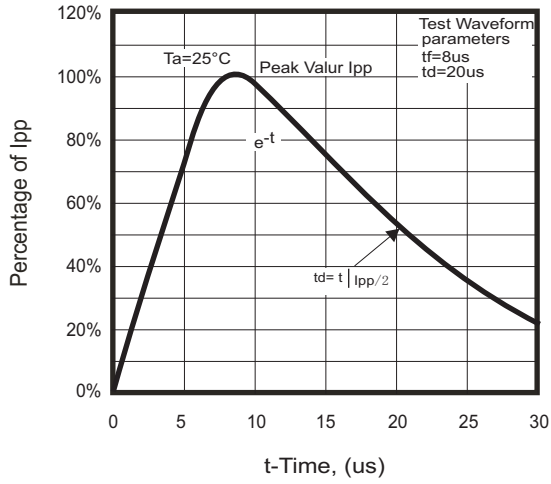
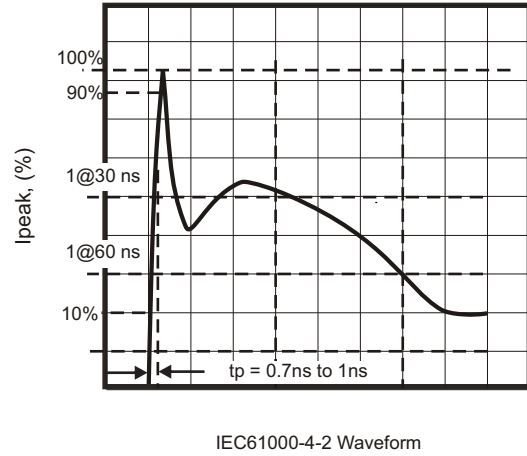
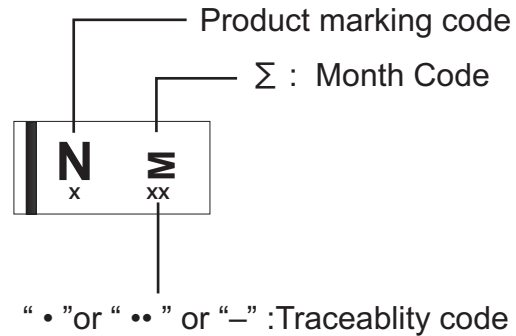


Fig.2- IEC61000-4-2 Waveform



## Marking Code

Part Number	Marking Code
CPDQT5V0SP-HF	N



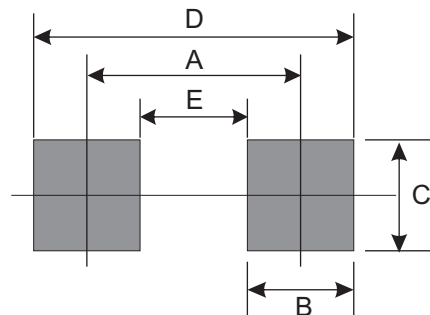
## Month Code:

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

Month	Odd Year (per A.D.)	Even Year (per A.D.)
Jul	7	N
Aug	8	P
Sep	9	U
Oct	T	X
Nov	V	Y
Dec	C	Z

## Suggested PAD Layout

SIZE	0402/SOD-882	
	(mm)	(inch)
A	0.700	0.035
B	0.400	0.012
C	0.700	0.016
D	1.100	0.047
E	0.300	0.024



## Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
0402/SOD-882	10,000	7