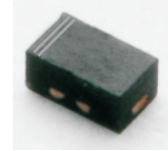


CPDQT5V0U-HF

RoHS Device
Halogen Free



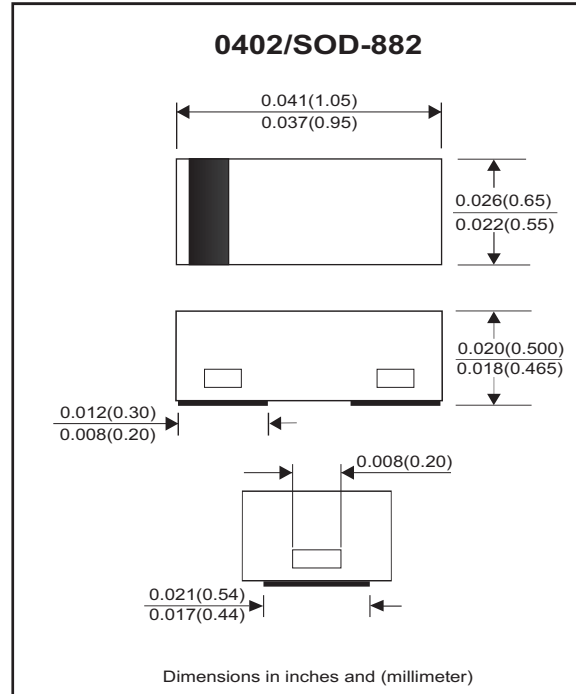
Features

- IEC61000-4-2 Level 4 ESD protection.
- ESD Rating of Class 3 per Human Body Mode.
- Low Leakage
- Response Time is Typically <1ns

Mechanical data

- Case: 0402/SOD-882 small outline plastic package.
- Terminals: Matte tin plated, solderable per MIL-STD-750, method 2026.
- Mounting position: Any.

Circuit Diagram



Maximum Rating (TA=25°C unless otherwise Specified)

Parameter	Symbol	Value	Unit
Total power dissipation on FR-5 board @TA=25°C (Note 1)	PD	150	mW
ESD per IEC 61000-4-2(Contact) ESD per IEC 61000-4-2(Air)	VESD	± 8 ±15	kV
Lead Soldering Temperature - Maximum (10 second duration)	TL	260 (10 sec.)	°C
Junction temperature range	TJ	-55 to +150	°C
Storage temperature range	TSTG	-55 to +150	°C

Notes: 1. FR-5=1.0*0.75*0.62 in.

Electrical Characteristics (TA=25°C unless otherwise noted, VF=0.9V Max.@ IF=10mA for all types)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Working peak reverse voltage		VRWM	-	-	5	V
Reverse current	VRWM = 5 V	IR	-	-	1.0	µA
Diode breakdown voltage (Note 2)	IT = 1 mA	VBR	6.2	-	-	V
Clamping voltage (Note 3)	I _{PP} = 8.7 A, Tp = 8/20µA	Vc	-	-	12.3	V
Peak pulse power	Tp = 8/20µs	PPK	-	107	-	W
Junction capacitance	VR= 0V , F=1MHz	CJ	-	65	-	pF

- Notes: 1. Other voltage available upon request.
 2. VBR is measured with a pulse test current IT at an ambient temperature of 25°C
 3. Surge current waveform per Figure 3.

RATING AND CHARACTERISTIC CURVES (CPDQT5V0U-HF)

Fig.1 - Typical Breakdown Voltage Versus Temperature

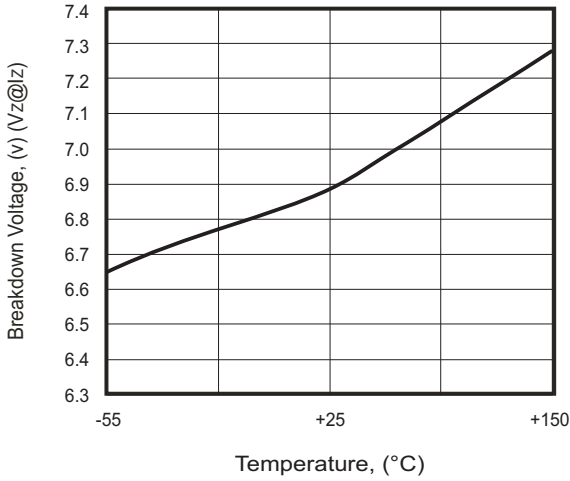


Fig.2 - Typical Leakage Current Versus Temperature

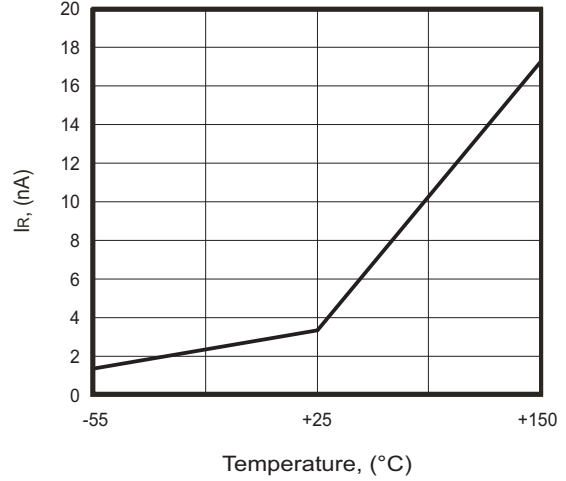


Fig.3 - 8/20us Peak Pulse Current Waveform Acc. IEC 61000-4-5

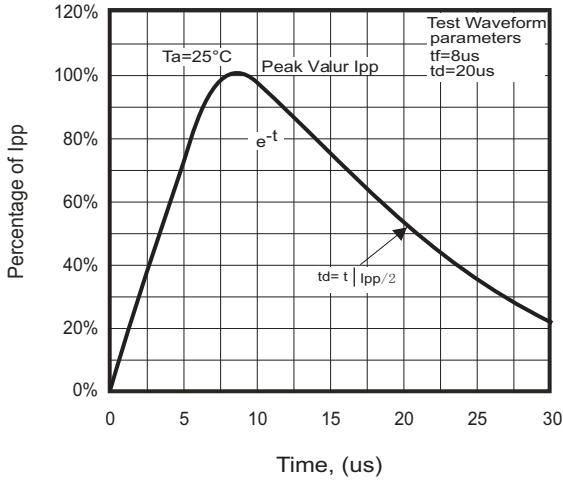
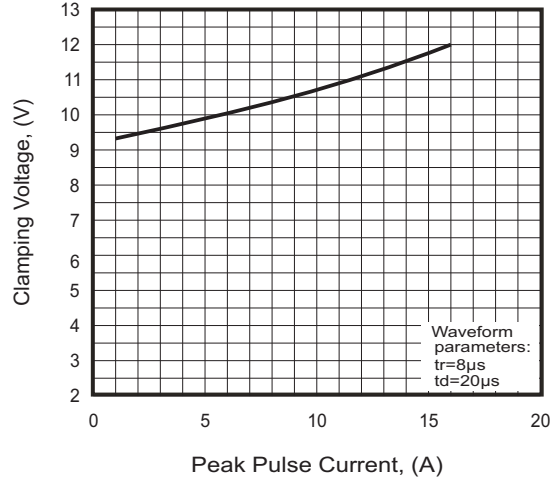
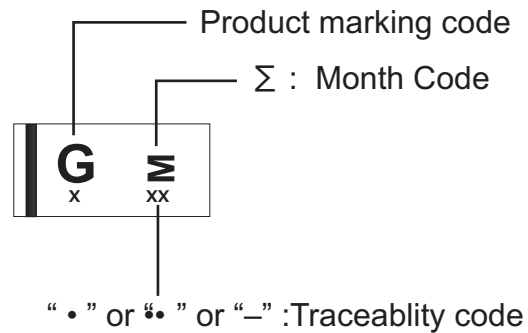


Fig.4 - Clamping Voltage Vs. Peak Pulse Current



Marking Code

Part Number	Marking Code
CPDQT5V0U-HF	G



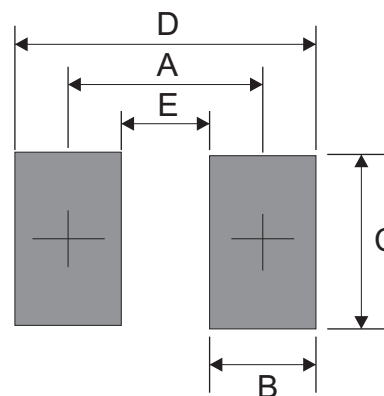
Month Code:

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	0.70	0.028
B	0.40	0.016
C	0.70	0.028
D	1.10	0.043
E	0.30	0.012



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
0402/SOD-882	10,000	7