

CPDH3V3UP

RoHS Device

Features

IEC61000-4-2 (ESD)±15kV(Contact),±20kV(Air).

Working voltage: 3.3V

Low leakage current.

Low operating and clamping voltages.

Mechanical data

Case: SOD-523 standard package ,molded plastic.

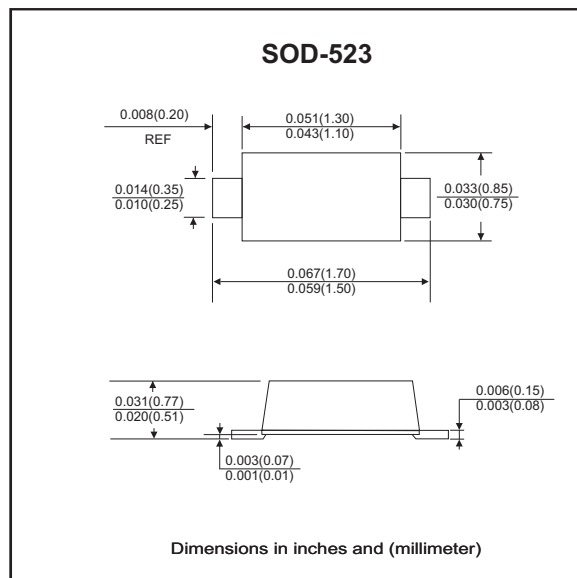
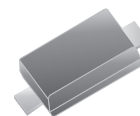
Terminals: Solderable per MIL-STD-750,
method 2026.

Marking Code: E3

Mounting position: Any

Weight: 0.0012 gram(approx.).

Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak pulse power (tp = 8/20 us)	PPP	40	W
Peak pulse current (tp = 8/20 us)	I _{PP}	5	A
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	V _{ESD}	±20 ±15	kV
Operating temperature	T _j	-55 to +125	°C
Storage temperature	T _{STG}	-55 to +125	°C

Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		V _{RWM}			3.3	V
Punch-through voltage	I _{PT} = 2uA	V _{PT}	3.5			V
Snap-back voltage	I _{SB} = 50mA	V _{SB}	2.8			V
Reverse leakage current	V _{RWM} = 3.3V	I _R		0.05	0.5	uA
Clamping voltage	I _{PP} = 1 A, tp=8/20us	V _C			5.5	V
	I _{PP} = 5 A, tp=8/20us	V _C			8.0	V
Reverse clamping voltage	I _{PPR} = 1 A, tp=8/20us	V _{CR}			2.4	V
Junction capacitance	V _R = 0 V, f = 1MHz	C _j		12	16	pF

RATING AND CHARACTERISTIC CURVES (CPDH3V3UP)

Fig. 1 - Non-repetitive max. peak pulse power vs. pulse time

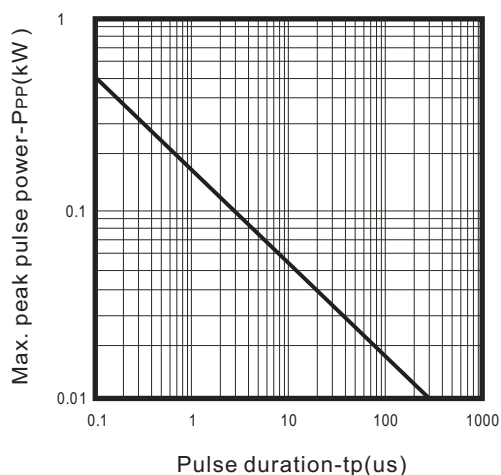


Fig. 2 - Power rating derating curve

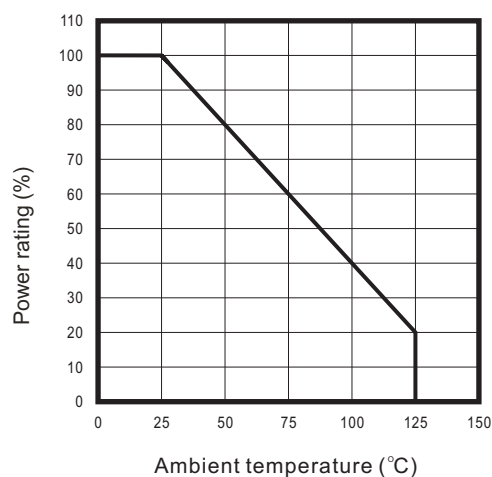


Fig.3 - Clamping voltage vs. peak pulse current

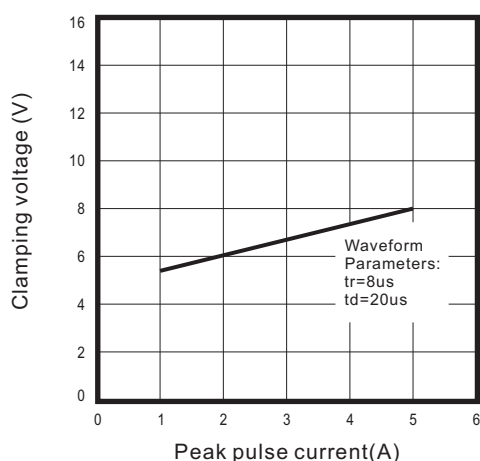


Fig.4 - Forward voltage vs. Forward current

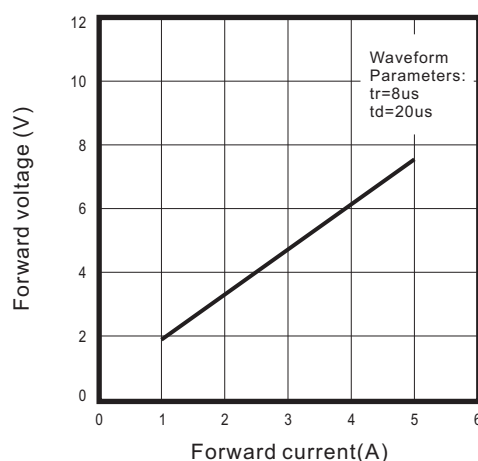
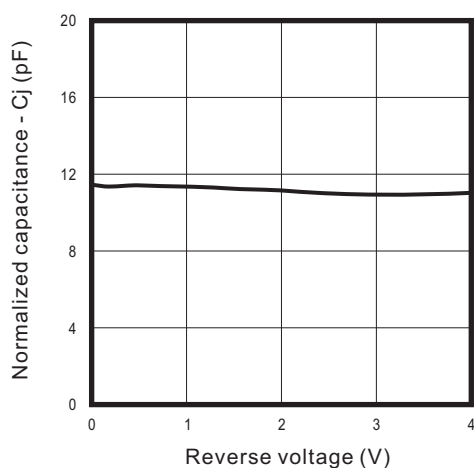
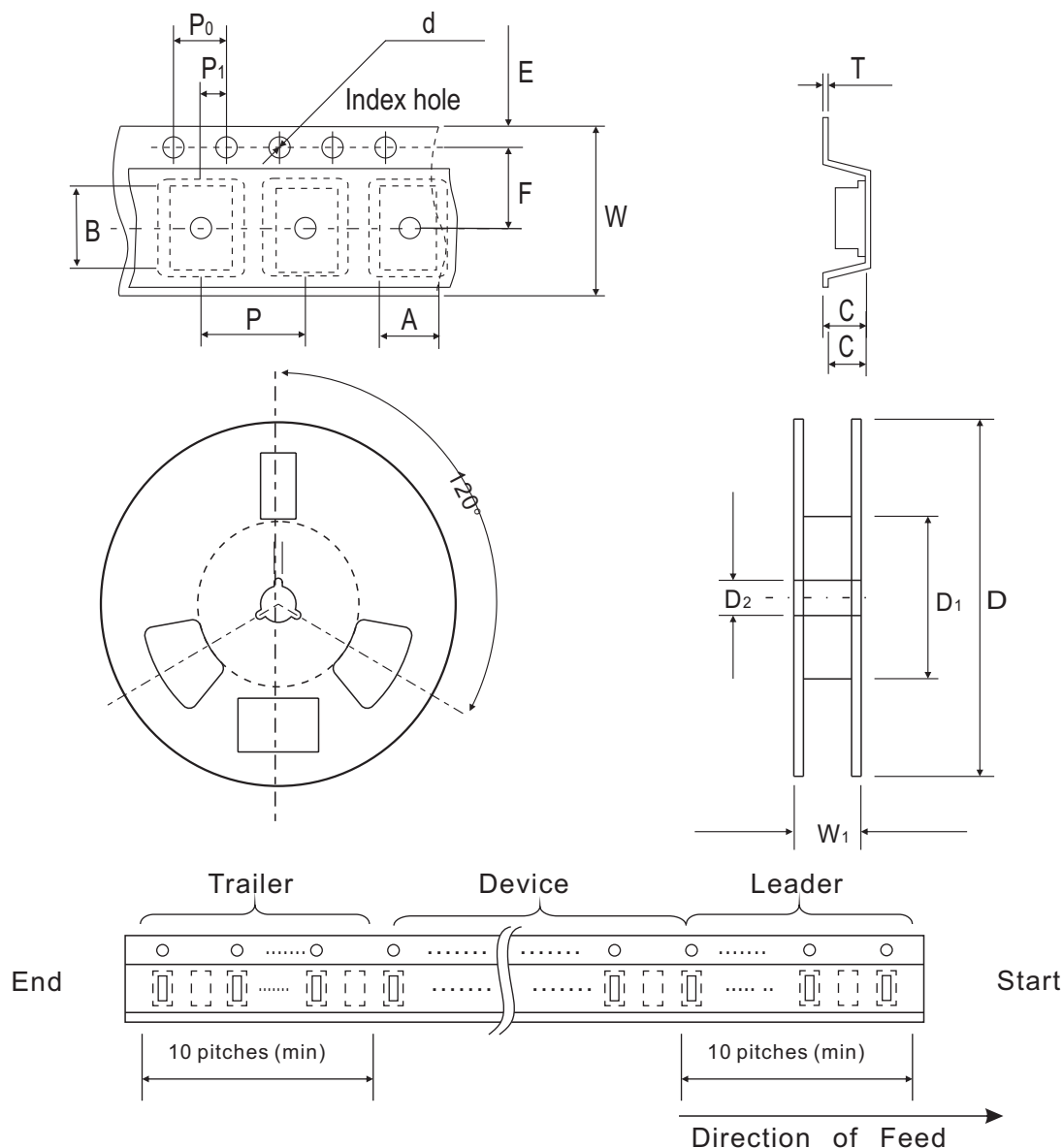


Fig.5 - Junction capacitance vs. reverse voltage



Reel Taping Specification



SOD-523	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.90 ± 0.10	1.94 ± 0.10	0.73 ± 0.10	1.50 ± 0.10	178 ± 1.00	54.40 ± 0.40	13.00 ± 0.20
	(inch)	0.035 ± 0.004	0.076 ± 0.004	0.029 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

SOD-523	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	$8.00 \pm 0.30 / - 0.10$	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.004	0.158 ± 0.004	0.079 ± 0.004	$0.315 \pm 0.012 / - 0.004$	0.374 ± 0.039

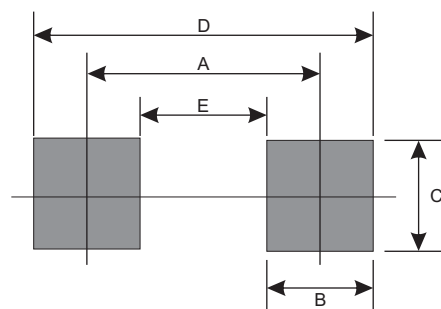
Marking Code

Part Number	Marking Code
CPDH3V3UP	E3



Suggested PAD Layout

SIZE	SOD-523	
	(mm)	(inch)
A	1.40	0.055
B	0.60	0.024
C	0.70	0.028
D	2.00	0.079
E	0.80	0.031



Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
SOD-523	3000	7