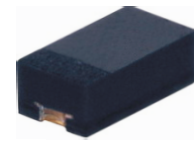


CPDU3V3UP-HF

RoHS Device

Halogen Free



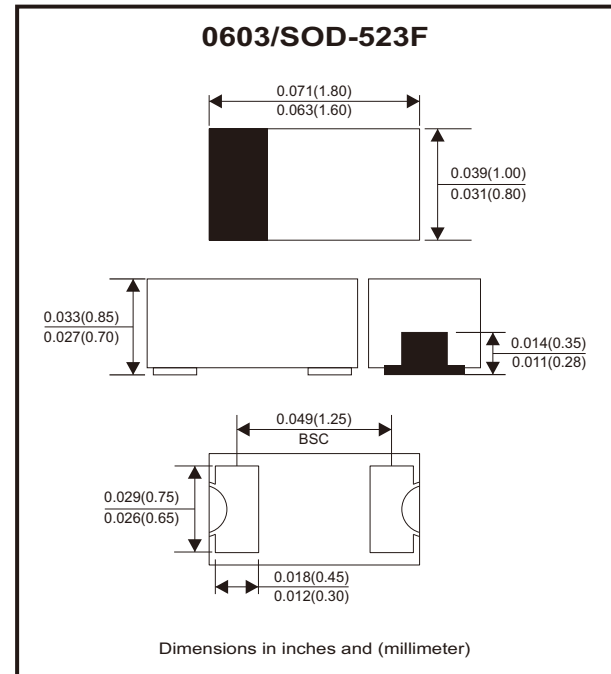
Features

- Working voltage: 3.3V.
- Low leakage current.
- Low operating and clamping voltages.

Mechanical data

- Case: 0603/SOD-523F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Mounting position: Any.
- Weight: 0.003 grams (approx.).

Circuit Diagram



Maximum Rating (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

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

Electrical Characteristics (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		V _{RWM}			3.3	V
Punch-through voltage	I _{PT} = 2μA	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	μA
Clamping voltage	I _{PP} = 1A, $t_p = 8/20\mu\text{s}$	V _C			5.5	V
	I _{PP} = 5A, $t_p = 8/20\mu\text{s}$	V _C			8.0	V
Reverse clamping voltage	I _{PPR} = 1A, $t_p = 8/20\mu\text{s}$	V _{CR}			2.4	V
Junction capacitance	V _R = 0V, f = 1MHz	C _j		12	16	pF

Rating and Characteristic Curves (CPDU3V3UP-HF)

Fig.1 - Definitions of Electrical Characteristics

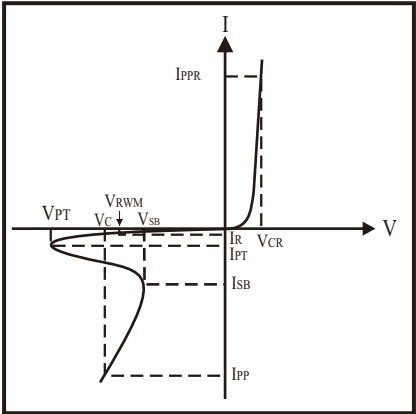


Fig.2 - Non-Repetitive Max. Peak Pulse Power vs. Pulse Time

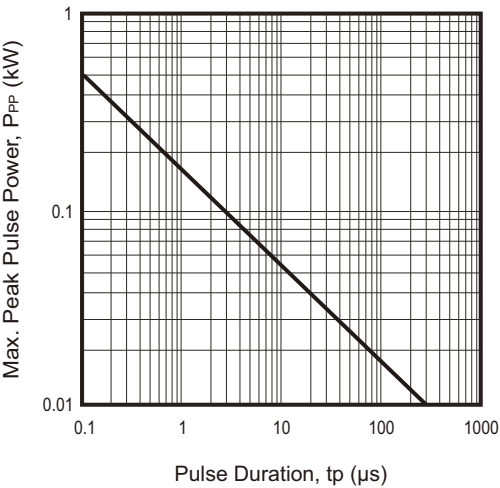


Fig.3 - Power Rating Derating Curve

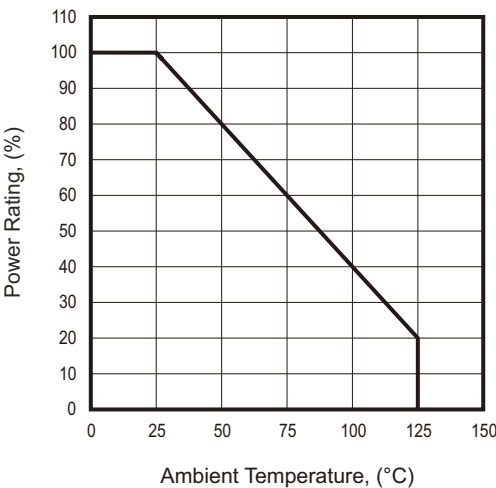


Fig.4 - Clamping Voltage Vs. Peak Pulse Current

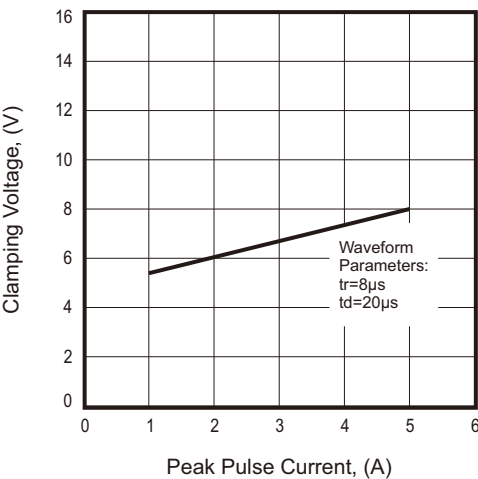


Fig.5 - Forward Voltage Vs. Forward Current

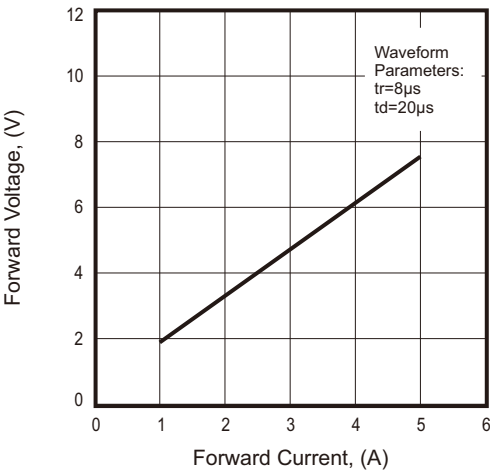
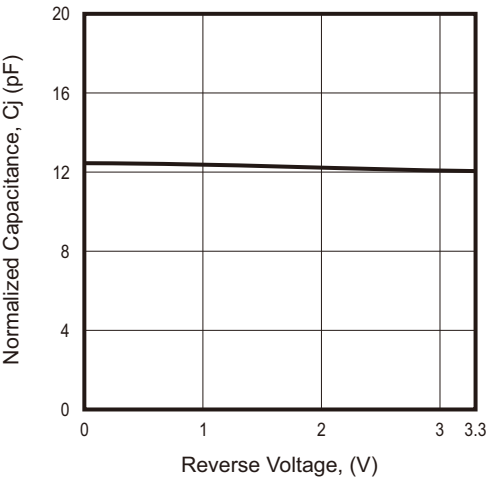
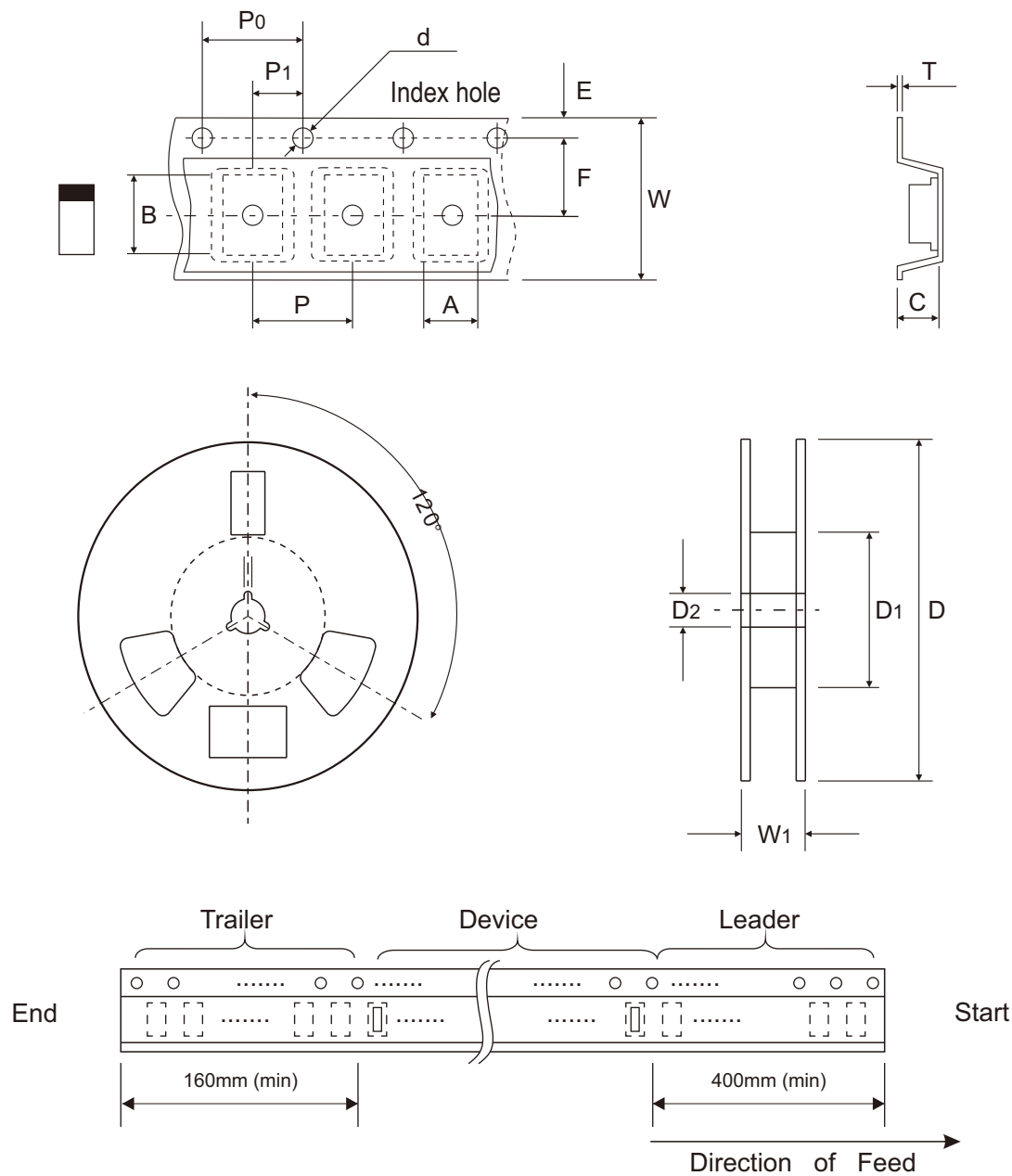


Fig.6 - Junction Capacitance Vs. Reverse Voltage



Reel Taping Specification



0603 (SOD-523F)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.16 ± 0.10	1.90 ± 0.10	0.95 ± 0.10	1.50 + 0.10 - 0.00	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.046 ± 0.004	0.075 ± 0.004	0.037 ± 0.004	0.059 + 0.004 - 0.000	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

0603 (SOD-523F)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.22 ± 0.03	8.00 ± 0.20	12.00 + 0.50 - 0.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.009 ± 0.001	0.315 ± 0.008	0.472 + 0.020 - 0.000

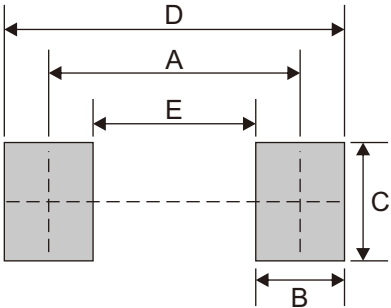
Marking Code

Part Number	Marking Code
CPDU3V3UP-HF	E3V3



Suggested P.C.B. PAD Layout

SIZE	0603/SOD-523F	
	(mm)	(inch)
A	1.70	0.067
B	0.60	0.024
C	0.80	0.031
D	2.30	0.091
E	1.10	0.043



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
0603/SOD-523F	4,000	7