



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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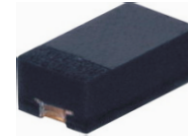
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CPDU24V0U-HF

RoHS Device
Halogen Free



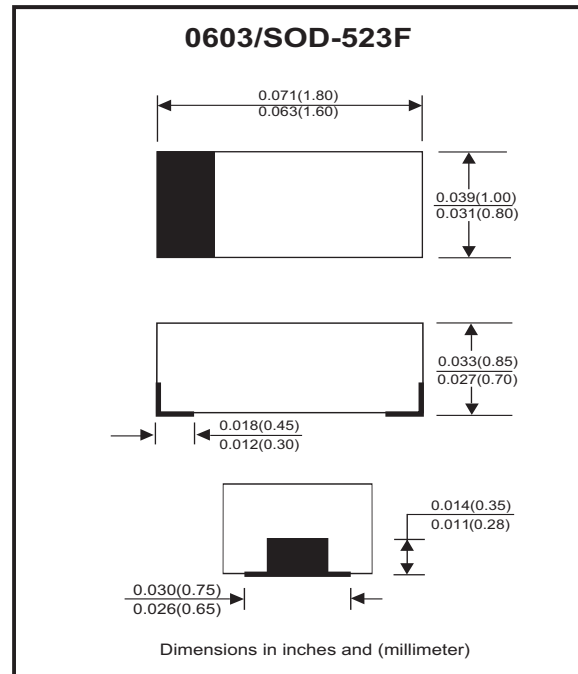
Features

- Uni-directional ESD protection.
- Surface mount package.
- High component density.

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 10\text{mA}$	V_F		0.8	1.2	V
Diode breakdown voltage	$I_R = 1\text{mA}$	V_{BD}	26.5			V
Leakage current	$V_R = 24\text{V}$	I_L			0.25	μA
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	C_T			35	pF
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD			20 15	kV
Clamping voltage	$I_{PP} = 1\text{A}, T_P=8/20\mu\text{s}$ $I_{PP} = 3\text{A}, T_P=8/20\mu\text{s}$	V_C			38 50	V
Peak pulse power		P_{PP}			150	W
Operation temperature range		T_J	-55		125	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55		150	$^\circ\text{C}$

RATING AND CHARACTERISTIC CURVES (CPDU24V0U-HF)

Fig.1 - 8/20us Peak Pulse Current Wave Form Acc. IEC 61000-4-5

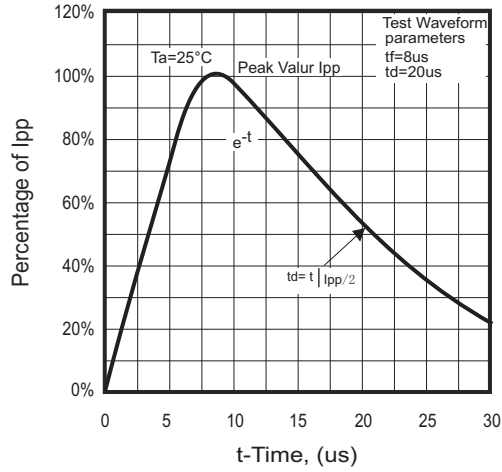


Fig.2 - Power Rating Derating Curve

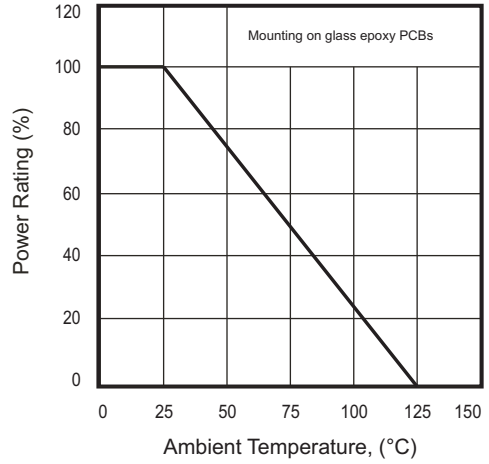


Fig.3 - Clamping Voltage Vs. Peak Pulse Current

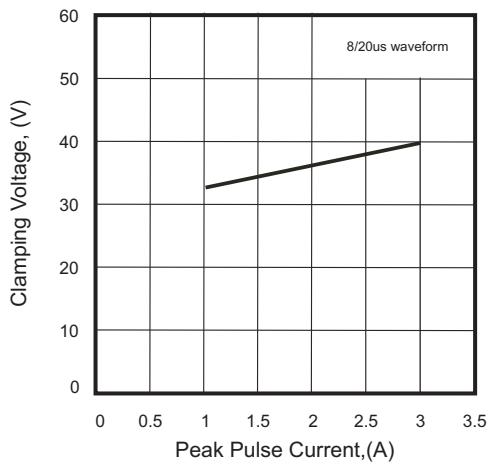


Fig.4 - Clamping Voltage Vs. Forward Peak Pulse Current

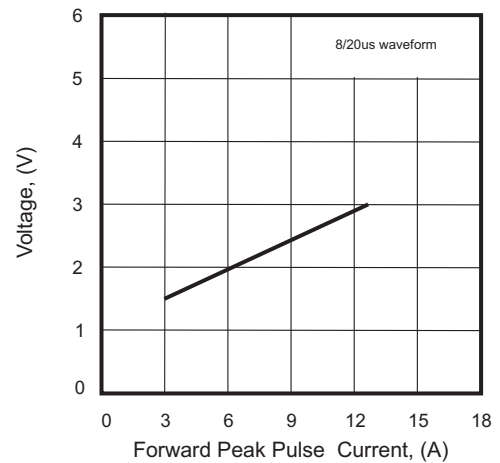
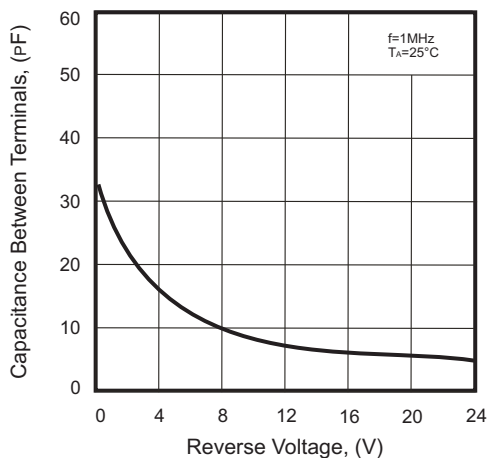


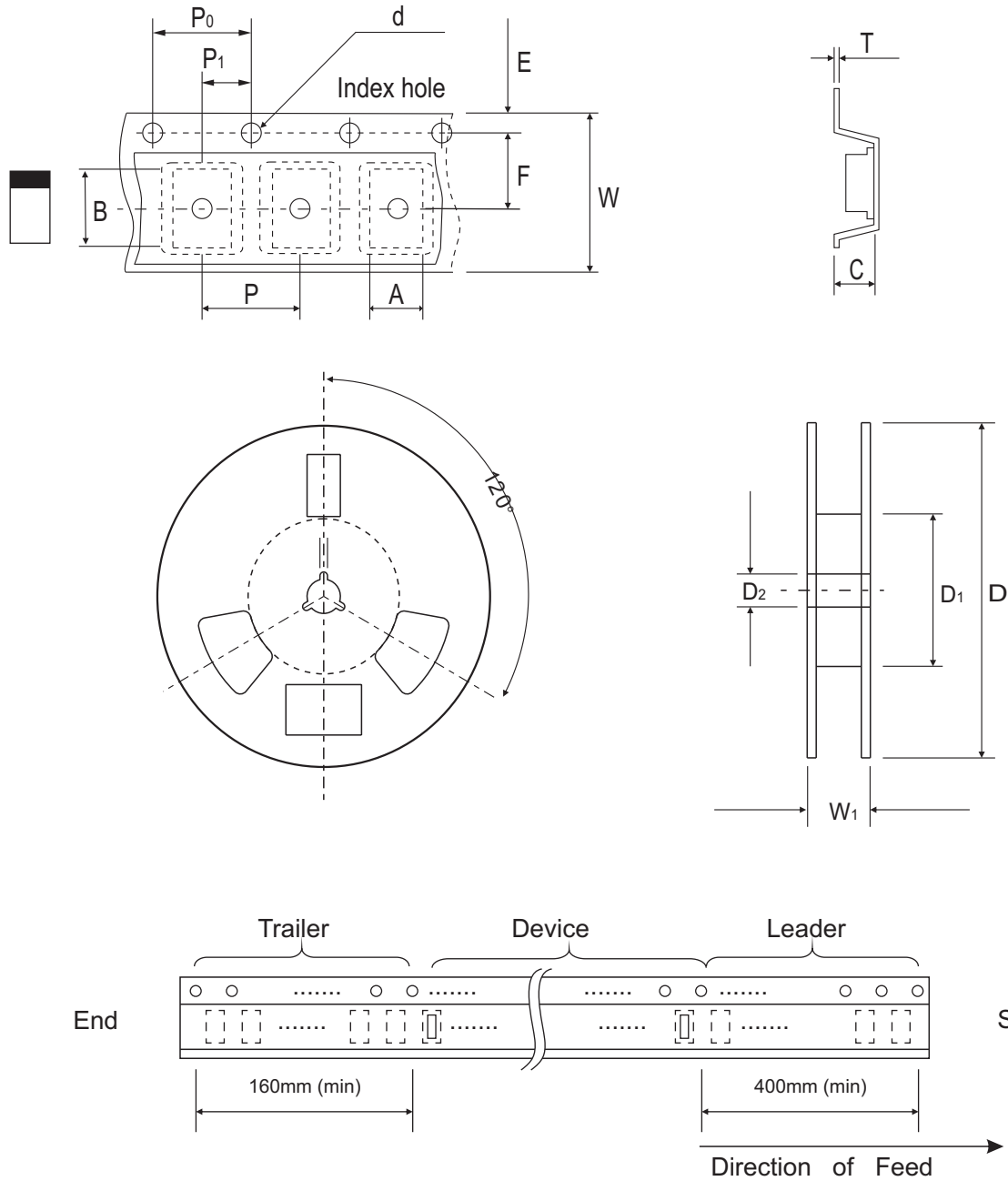
Fig.5 - Capacitance Between Terminals Characteristics



Company reserves the right to improve product design , functions and reliability without notice.

REV:B

Reel Taping Specification



0603 (SOD-523)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.16 ± 0.10	1.90 ± 0.10	0.95 ± 0.10	1.50 ^{+0.10} ₋₀	178.00 ± 1.00	60.0 ± 0.50	13.50 ± 0.20
	(inch)	0.046 ± 0.004	0.075 ± 0.004	0.037 ± 0.004	0.059 ^{+0.004} ₋₀	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

0603 (SOD-523)	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.22 ^{+0.10} _{-0.05}	8.00 ± 0.20	12.00 ^{+0.50} ₋₀
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.009 ^{+0.004} _{-0.002}	0.315 ± 0.008	0.472 ^{+0.020} ₋₀

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REV:B

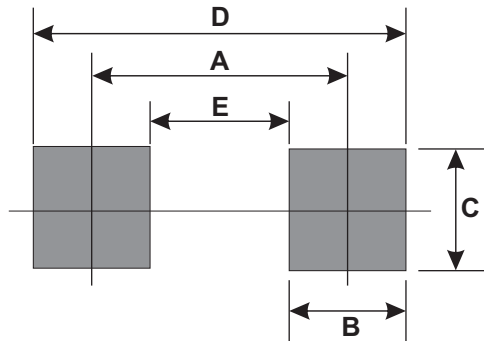
Marking Code

Part Number	Marking Code
CPDU24V0U-HF	E24



Suggested 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