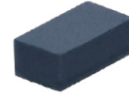


## CPDUR3V3-HF

RoHS Device  
Halogen Free



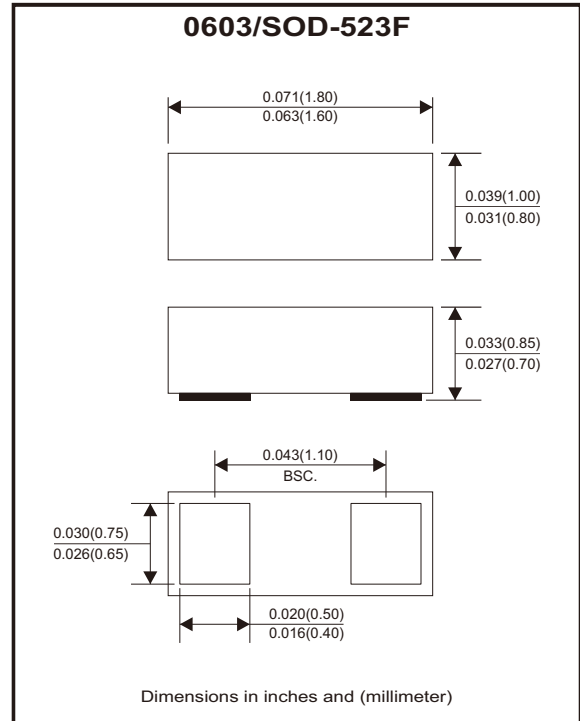
### Features

- Bi-directional ESD protection.
- Surface mount package.
- Low leakage current.
- 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 Ratings (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Peak pulse power	$t_p = 8/20\mu\text{s}$	PPK			50	W
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD			15 8	kV
Operating temperature range		$T_j$	-55		125	$^\circ\text{C}$
Storage temperature range		$T_{STG}$	-55		150	$^\circ\text{C}$

### 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
Breakdown voltage	$I_R = 1\text{mA}$	$V_{BD}$			4.5	V
Leakage current	$V_R = 3.3\text{V}$	$I_R$			0.3	$\mu\text{A}$
Clamping voltage	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$ $I_{PP} = 4\text{A}, t_p = 8/20\mu\text{s}$	$V_C$			6.5 12.5	V
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	$C_T$			8	pF

## Rating and Characteristic Curves (CPDUR3V3-HF)

Fig.1 - 8/20 $\mu$ s Peak Pulse Current  
WaveForm Acc. IEC 61000-4-5

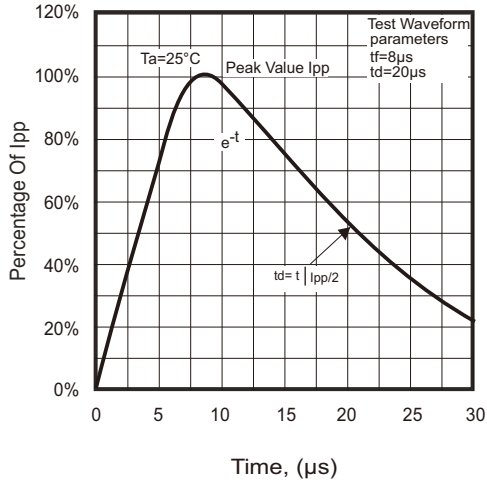


Fig.2 - Capacitance Between  
Terminals Characteristics

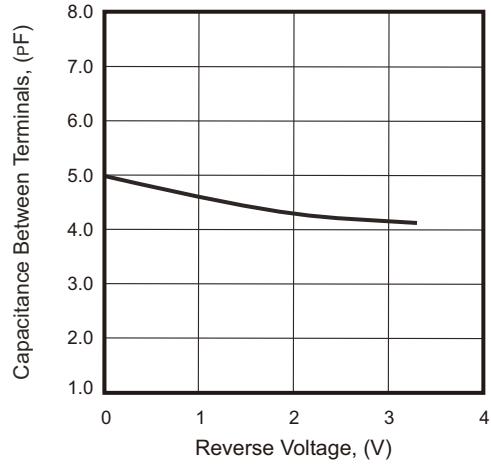


Fig.3 - Clamping Voltage vs.  
Peak Pulse Current

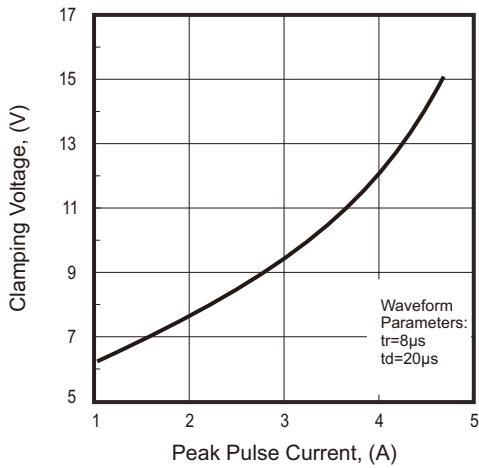
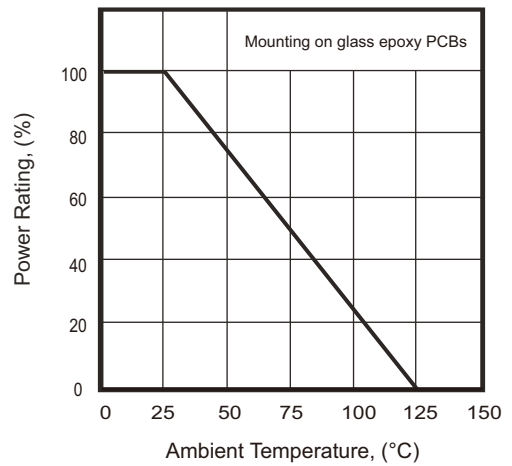
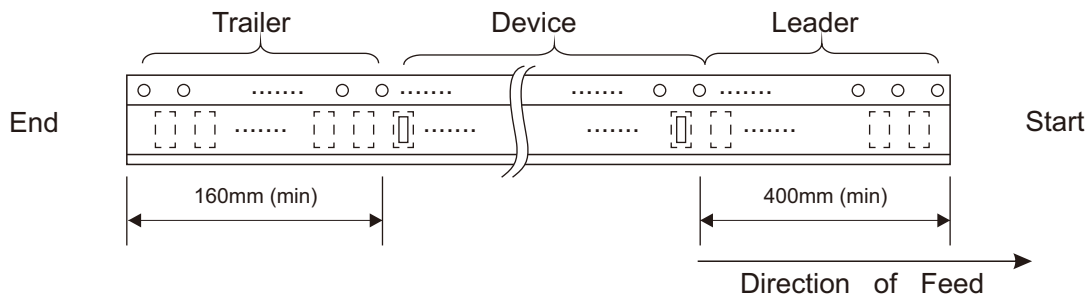
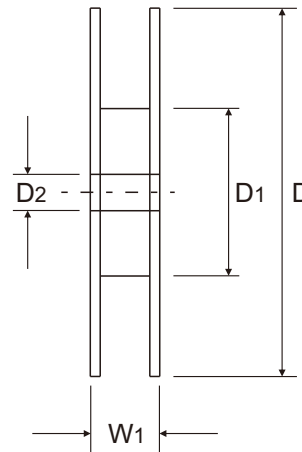
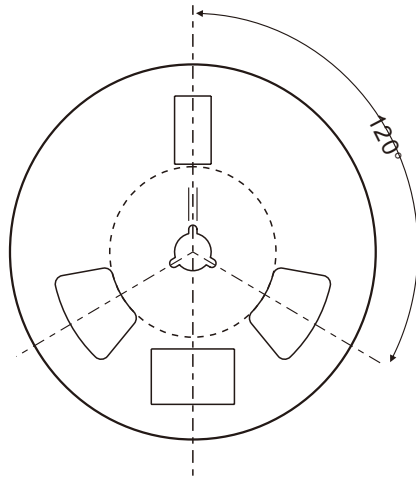
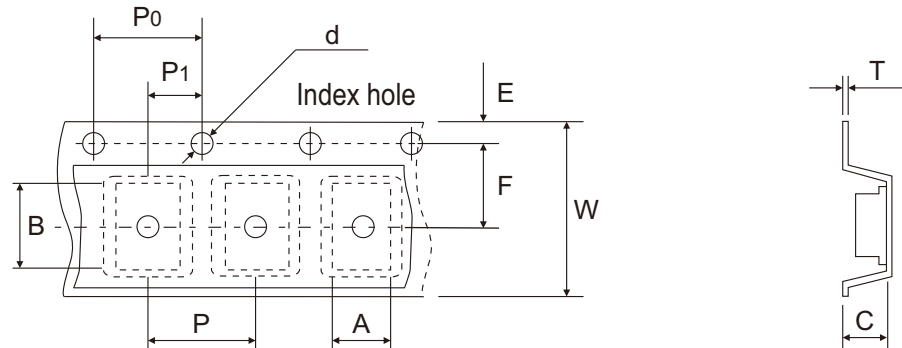


Fig.4 - Power Rating Derating Curve



## 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

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

REV:D

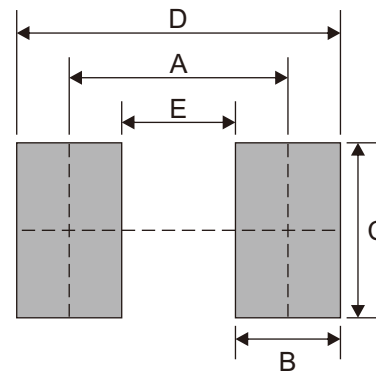
## Marking Code

Part Number	Marking Code
CPDUR3V3-HF	E3V3

# E3V3

## Suggested P.C.B. PAD Layout

SIZE	0603/SOD-523F	
	(mm)	(inch)
A	1.25	0.049
B	0.60	0.024
C	1.00	0.039
D	1.85	0.073
E	0.65	0.026



## Standard Packaging

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