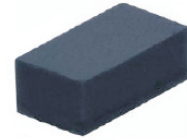


## CPDUR3V3-HF

**RoHS Device**  
**Halogen Free**

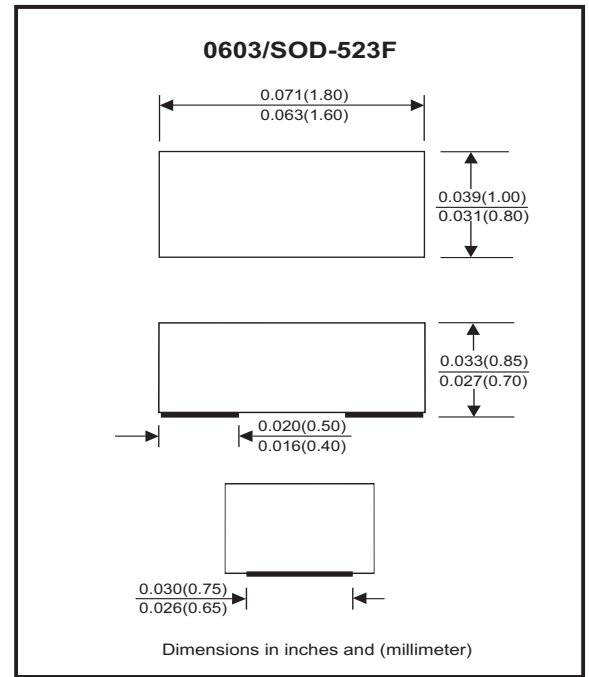


### Features

- 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.
- Marking Code: E3V3
- Mounting position: Any.
- Weight: 0.003 grams(approx.).



### Circuit Diagram



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		VRWM			3.3	V
Breakdown voltage	IR = 1mA	VBD			4.5	V
Leakage current	VR = 3.3V	IR			0.3	μA
Clamping voltage	I <sub>PP</sub> =1A , tp=8/20us I <sub>PP</sub> =4A , tp=8/20us	VC			6.5 12.5	V
Peak pulse power	tp= 8/20	PPK			50	W
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD			15 8	kV
Junction capacitance	VR = 0V, f =1MHz	CT			8	pF
Operation temperature range		Tj	-55		125	°C
Storage temperature range		TSTG	-55		150	°C

## RATING AND CHARACTERISTIC CURVES (CPDUR3V3-HF)

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

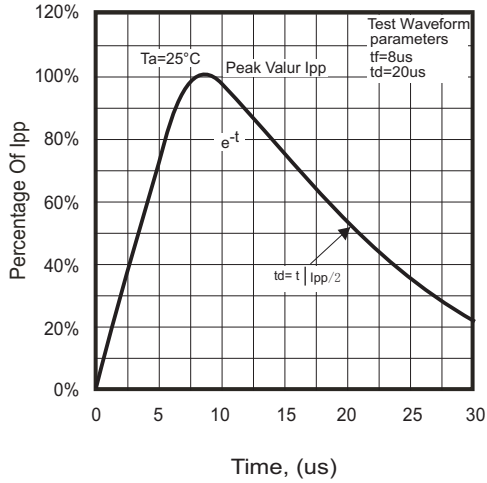


Fig.2 - Capacitance Between  
Terminals Characteristics

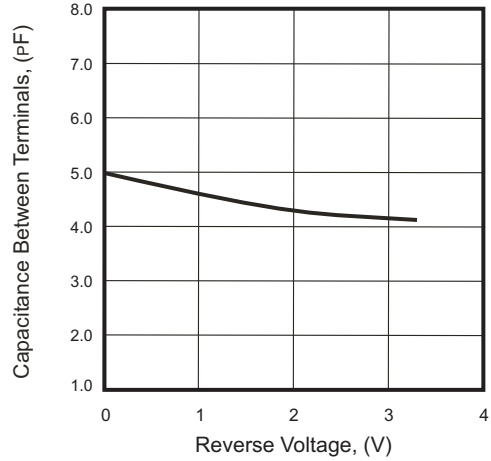


Fig.3 - Clamping Voltage vs.  
Peak Pulse Current

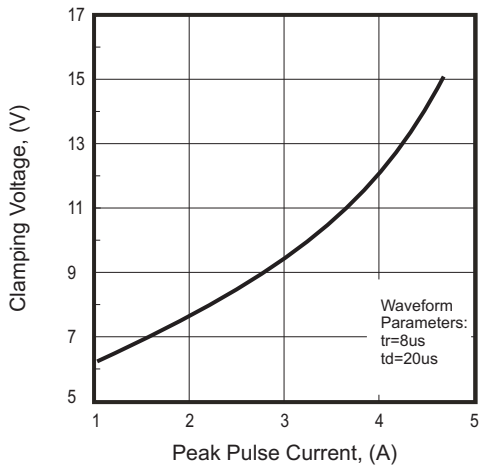
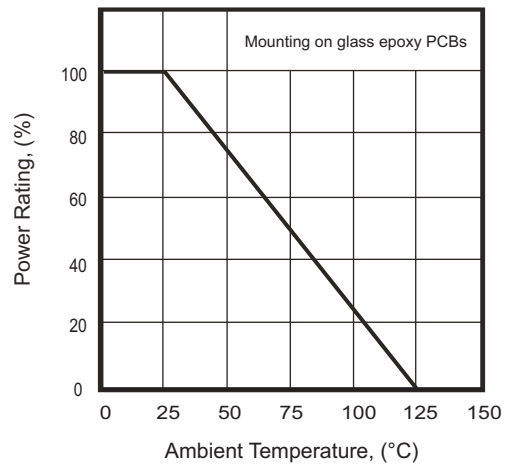
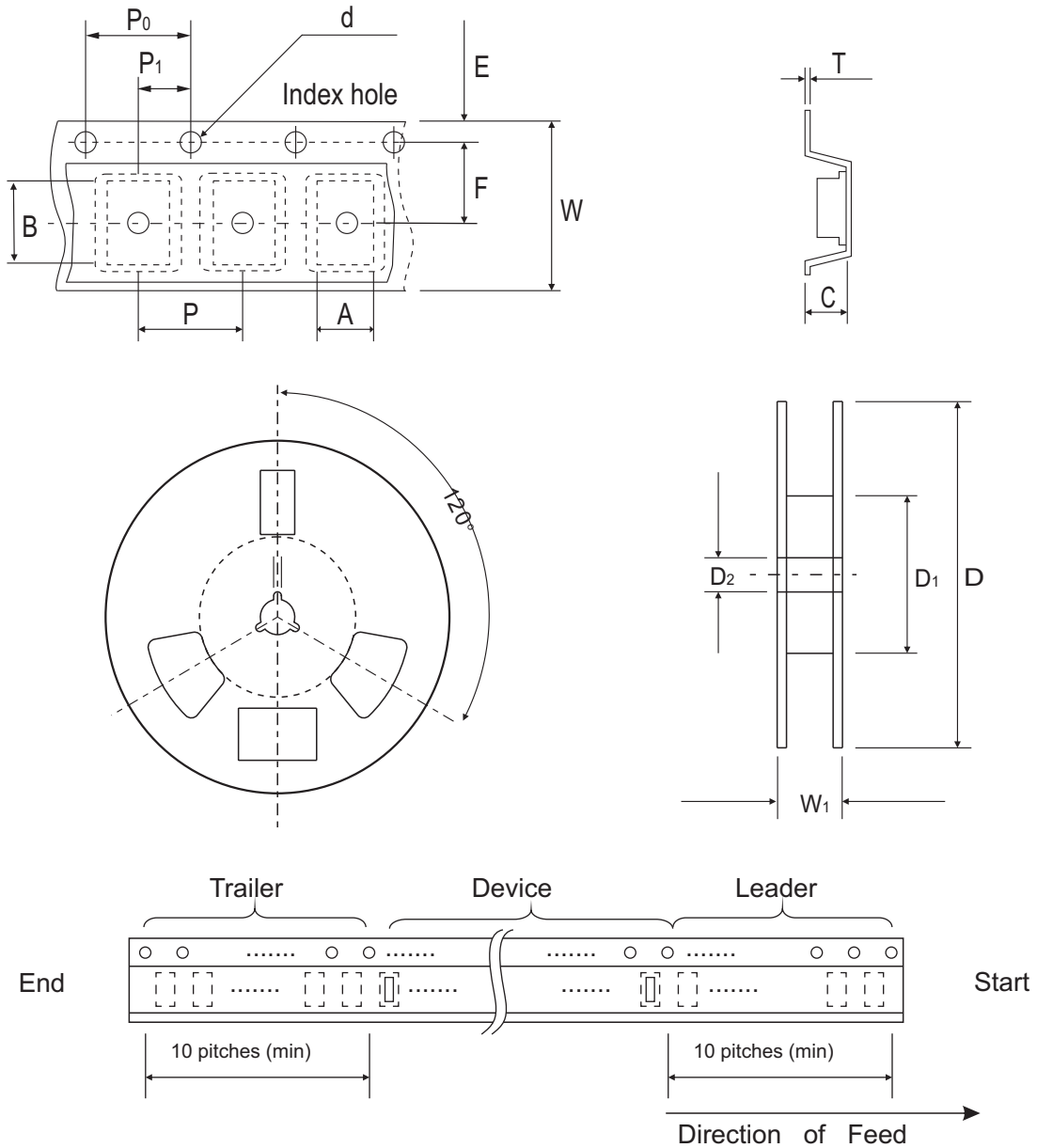


Fig.4 - Power Rating Derating Curve



## Reel Taping Specification



0603 (SOD-523)	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	1.00 ± 0.10	1.85 ± 0.10	1.00 ± 0.10	1.55 ± 0.05	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.039 ± 0.004	0.073 ± 0.004	0.039 ± 0.004	0.061 ± 0.002	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

0603 (SOD-523)	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.23 ± 0.05	8.00 ± 0.20	13.5 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.002	0.315 ± 0.008	0.531 MAX.

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

REV: C

## Marking Code

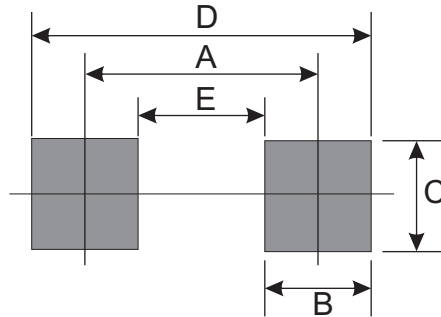
Part Number	Marking Code
CPDUR3V3-HF	E3V3

E3V3

xxxx = Product type marking code

## Suggested 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	Qty Per Reel	Reel Size
	(Pcs)	(inch)
0603/SOD-523F	4,000	7