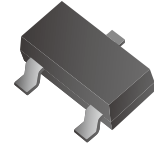


## ACPDT-24VE-HF

RoHS Device

Halogen Free



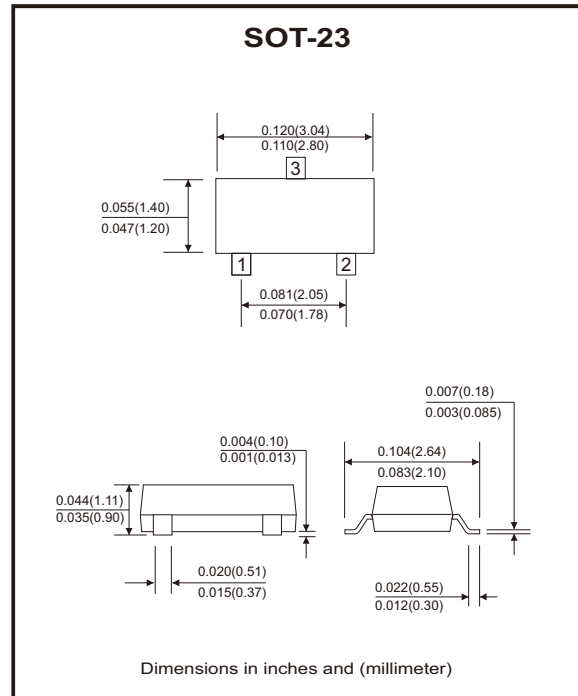
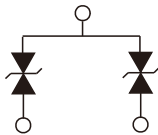
### Features

- Common anode ESD protection.
- IEC61000-4-2 Level 4 ESD protection.
- Surface mount package.
- High component density.
- AEC-Q101 Qualified.

### Mechanical data

- Case: SOT-23 Standard package, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Mounting position: Any.

### Circuit Diagram



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

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	$T_P = 8/20\mu s$	$P_{PP}$	138	W
Peak pulse current	$T_P = 8/20\mu s$	$I_{PP}$	3	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	$\pm 30$	kV
Operating temperature range		$T_j$	-55~+150	°C
Storage temperature range		$T_{STG}$	-55~+150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		$V_{RWM}$			24	V
Breakdown voltage	$I_R = 1mA$	$V_{BR}$	26.5			V
Reverse leakage current	$V_R = 24V$	$I_R$			0.1	$\mu A$
Clamping voltage	$I_{PP} = 1A, T_P = 8/20\mu s$ $I_{PP} = 3A, T_P = 8/20\mu s$	$V_C$			36 46	V
Junction capacitance	$V_R = 0V, f = 1MHz$	$C_J$		13	20	pF

## Rating and Characteristic Curves (ACPDT-24VE-HF)

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

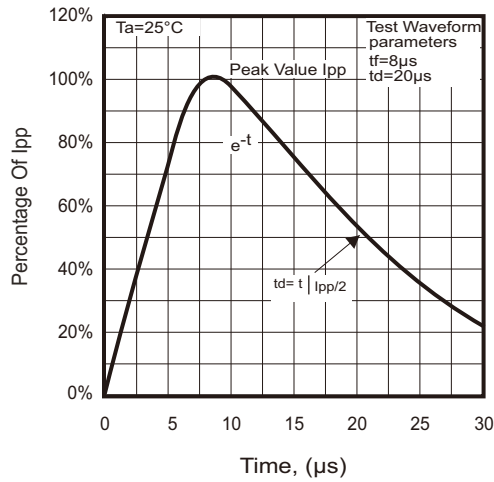


Fig.2 - Power Rating Derating Curve

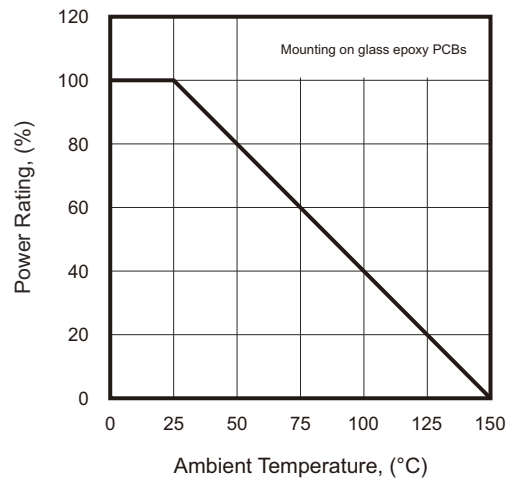


Fig.3 - Clamping Voltage Vs. Peak Pulse Current

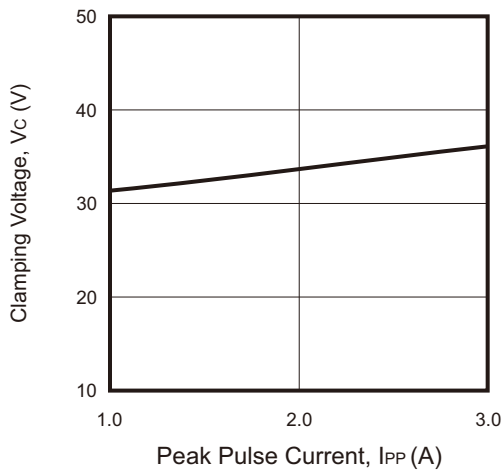
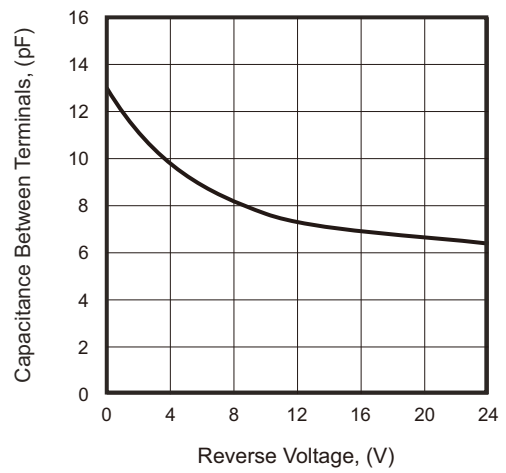
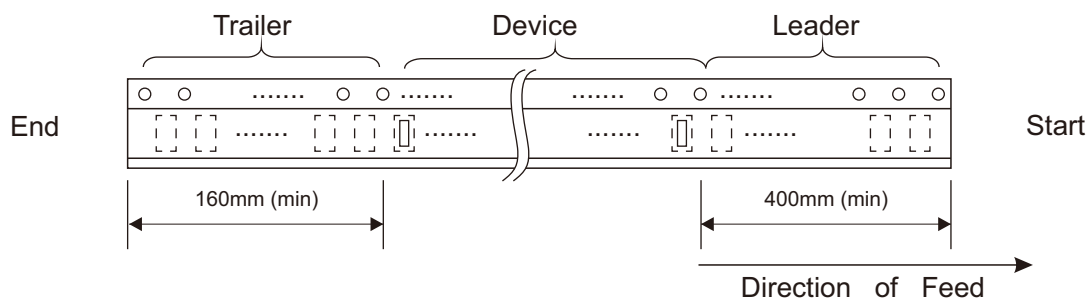
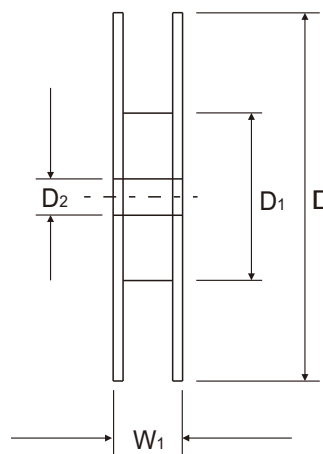
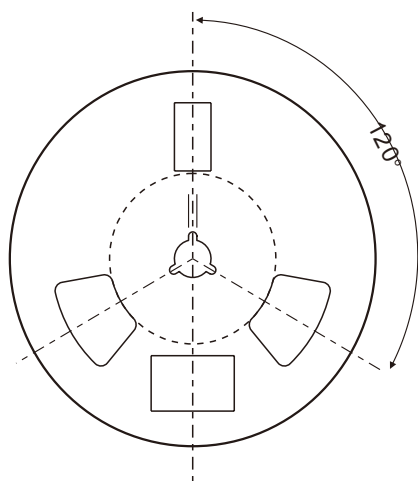
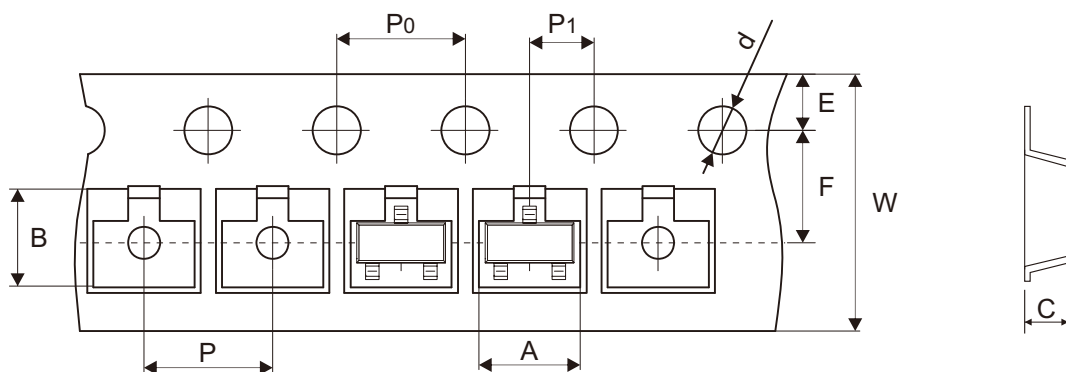


Fig.4 - Capacitance Between Terminals Characteristics



## Reel Taping Specification

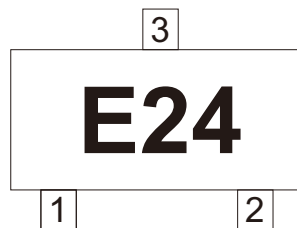


SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	$3.15 \pm 0.10$	$2.77 \pm 0.10$	$1.22 \pm 0.10$	$1.50 + 0.10 - 0.00$	$178.00 \pm 1.00$	$54.40 \pm 0.50$	$13.00 \pm 0.20$
	(inch)	$0.124 \pm 0.004$	$0.109 \pm 0.004$	$0.048 \pm 0.004$	$0.059 + 0.004 - 0.000$	$7.008 \pm 0.039$	$2.142 \pm 0.020$	$0.512 \pm 0.008$

SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	$1.75 \pm 0.10$	$3.50 \pm 0.10$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.05$	$8.00 + 0.30 - 0.10$	$13.10 \pm 1.30$
	(inch)	$0.069 \pm 0.004$	$0.138 \pm 0.004$	$0.157 \pm 0.004$	$0.157 \pm 0.004$	$0.079 \pm 0.002$	$0.315 + 0.012 - 0.004$	$0.516 \pm 0.051$

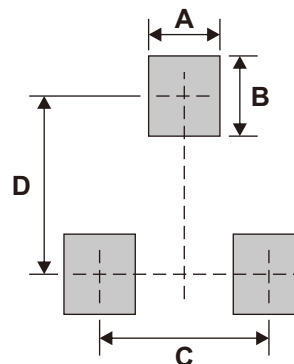
## Marking Code

Part Number	Marking Code
ACPDT-24VE-HF	E24



## Suggested P.C.B. PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.80	0.031
B	0.90	0.035
C	1.90	0.075
D	2.00	0.079



Note: 1. The pad layout is for reference purposes only.

## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOT-23	3,000	7