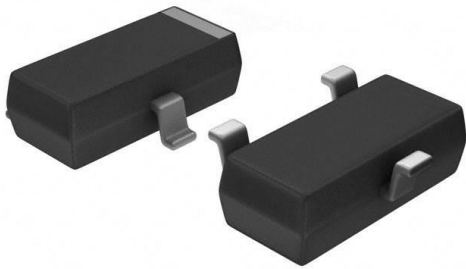


ACPDT-24V Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	ACPDT-24V-DG
Manufacturer	Comchip Technology
Manufacturer Product Number	ACPDT-24V
Description	TVS DIODE 24VWM 47VC SOT23-3
Detailed Description	47V Clamp 1A (8/20µs) Ipp Tvs Diode Surface Mount SOT-23-3

This model ACPDT-24V is available at DiGi Electronics.

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Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

ACPDT-24V

Series:

-

Type:

Zener

Voltage - Reverse Standoff (Typ):

24V

Voltage - Clamping (Max) @ Ipp:

47V

Power - Peak Pulse:

47W

Applications:

-

Operating Temperature:

-

Qualification:

AEC-Q101

Package / Case:

TO-236-3, SC-59, SOT-23-3

Base Product Number:

ACPDT-24

Manufacturer:

Comchip Technology

Product Status:

Active

Bidirectional Channels:

2

Voltage - Breakdown (Min):

25V

Current - Peak Pulse (10/1000µs):

1A (8/20µs)

Power Line Protection:

No

Capacitance @ Frequency:

10pF @ 1MHz

Grade:

Automotive

Mounting Type:

Surface Mount

Supplier Device Package:

SOT-23-3

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0080

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

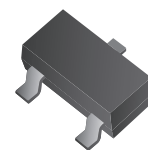
EAR99

SMD ESD Protection Diode



ACPDT-24V

RoHS Device

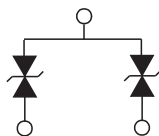
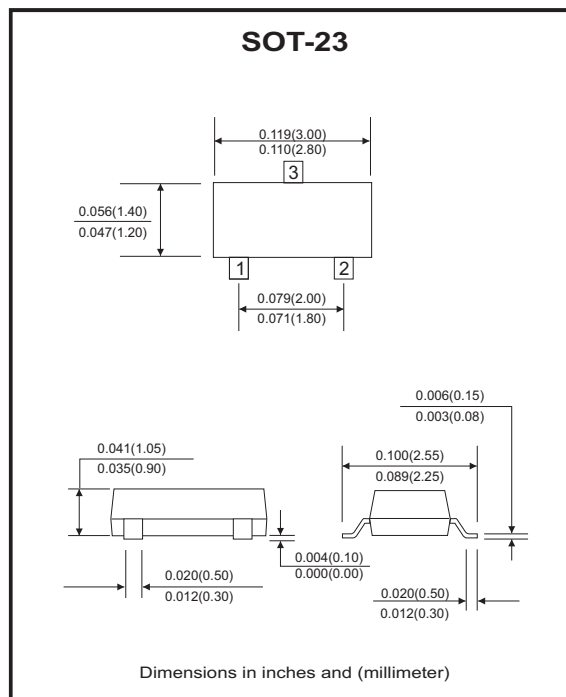


Features

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

Mechanical data

- Case: SOT-23 Standard package, molded plastic.
- Terminals: Tin plated, solderable per MIL-STD-750, method 2026.
- Marking code:E24
- Mounting position: Any.
- Weight: 0.0078 gram(approx.).



Maximum Rating and Electrical Characteristics

(at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Diode breakdown voltage	$I_R = 1\text{mA}$	V_{BD}	25	28		V
Leakage current	$V_R = 24\text{V}$	I_L		0.1	2.0	μA
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	C_T		10		pF
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD			16 8	kV
Clamping voltage	$I_{PP} = 1\text{A}, T_P = 8/20\mu\text{s}$	V_C			47	V
Peak pulse power	$T_P = 8/20\mu\text{s}$	P_{PP}			47	W
Operation temperature		T_J			125	°C
Storage temperature		T_{STG}	-55		150	°C

SMD ESD Protection Diode



RATING AND CHARACTERISTIC CURVES (ACPDT-24V)

Fig. 1 - 8/20us Peak pulse current wave form acc. IEC 61000-4-5

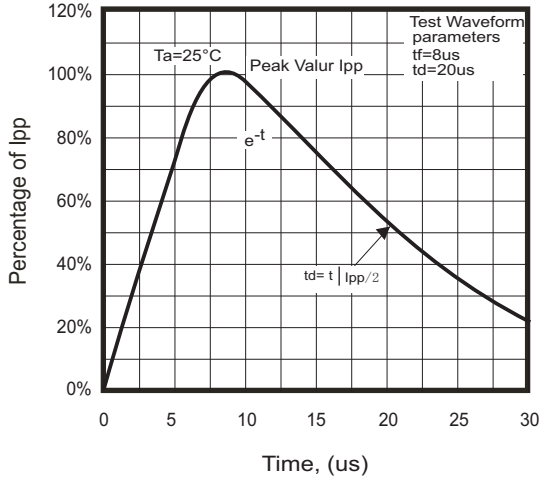


Fig. 2 - Reverse characteristics

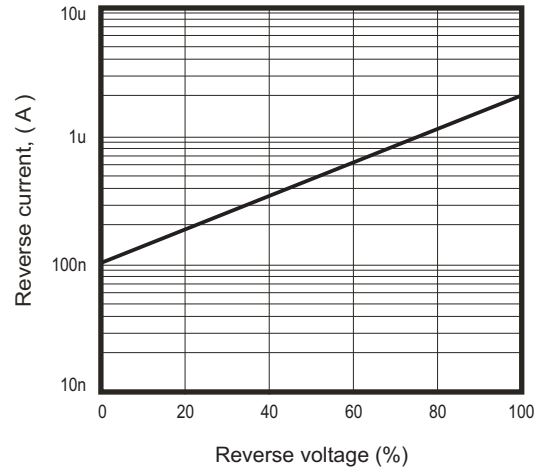


Fig.3 - Capacitance between terminals characteristics

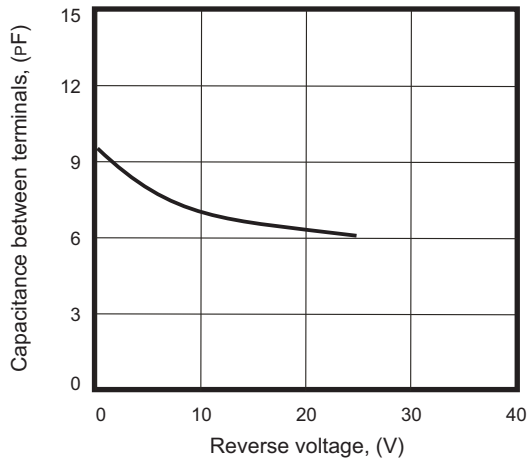
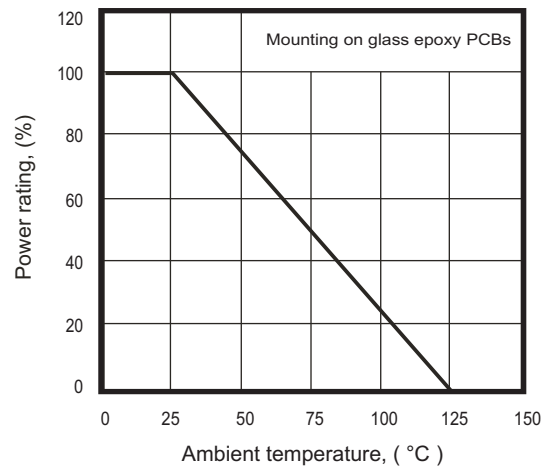


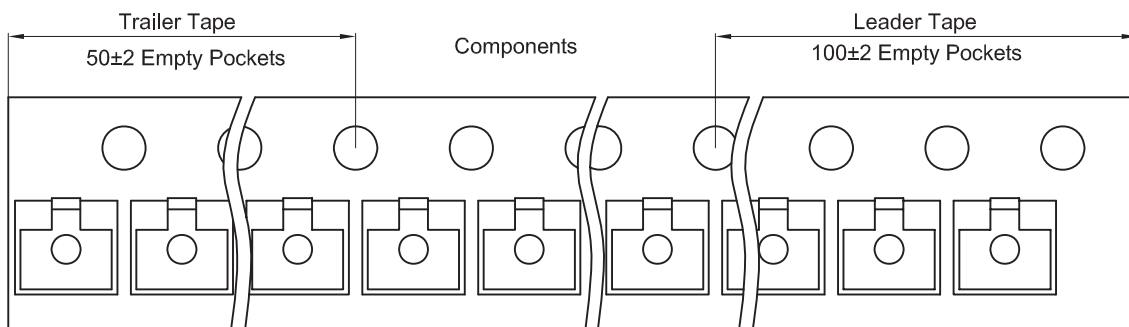
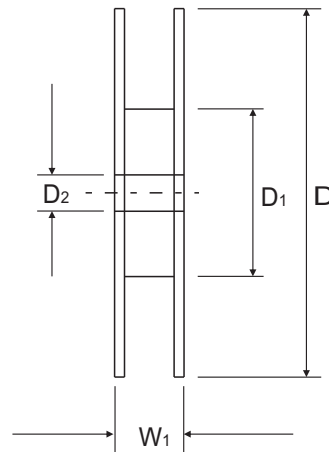
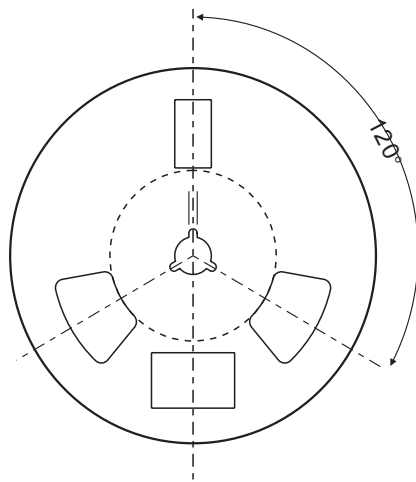
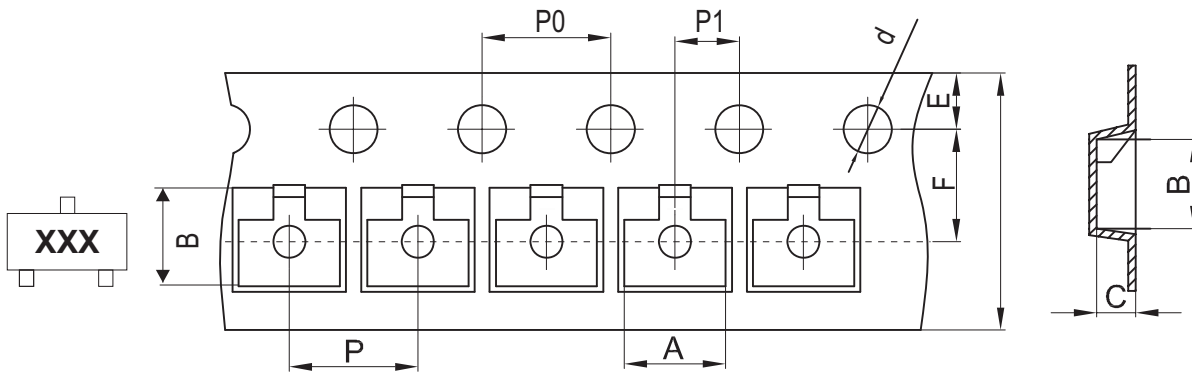
Fig.4 - Power rating derating curve



SMD ESD Protection Diode



Reel Taping Specification



SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 / - 0.10	12.30 ± 1.0
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 / - 0.004	0.484 ± 0.039

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

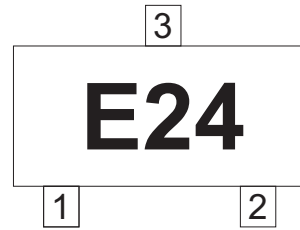
REV:A

SMD ESD Protection Diode



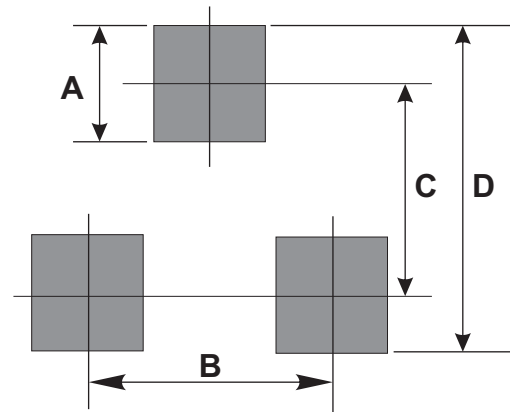
Marking Code

Part Number	Marking Code
ACPDT-24V	E24



Suggested PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.80	0.031
B	1.90	0.075
C	2.02	0.080
D	2.82	0.111



Standard Packaging

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

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