

ACPDZC2V5AHT-HF

RoHS Device
Halogen Free



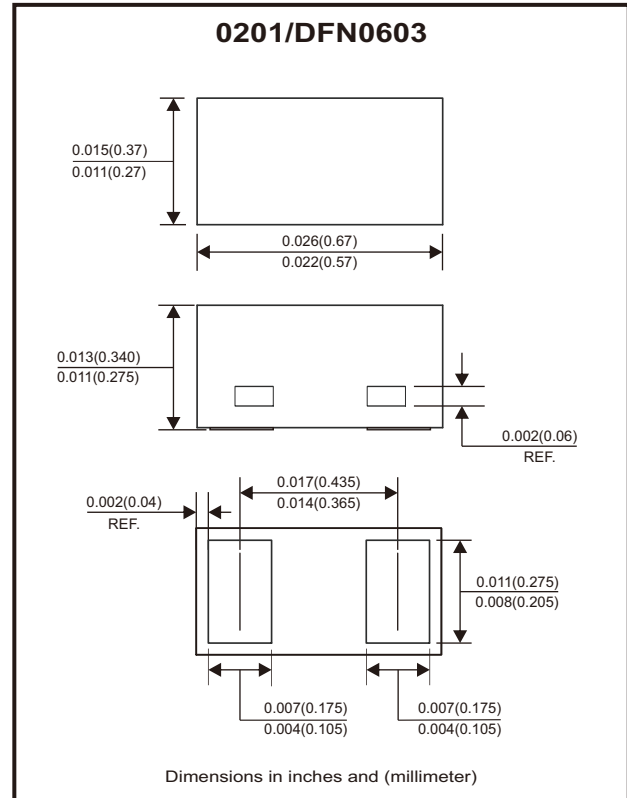
Features

- Bi-directional ESD protection.
- IEC 61000-4-2 Level 4 ESD protection.
- Ultra small SMD package:0201.
- Low leakage current.
- Low clamping voltage.
- AEC-Q101 Qualified.

Mechanical data

- Case: 0201/DFN0603 package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Mounting position: Any.
- Weight: 0.0004 grams (approx.).

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}	119	W
Peak pulse current	$T_P = 8/20\mu s$	I_{PP}	17	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	± 30	kV
Junction temperature range		T_j	-55 to +125	°C
Storage temperature range		T_{STG}	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		V_{RWM}			2.5	V
Reverse breakdown voltage	$I_T = 1mA$	V_{BR}	3.3			V
Reverse leakage current	$V_{RWM} = 2.5V$	I_R			1.0	μA
Clamping voltage	$I_{PP} = 5A, T_P = 8/20\mu s$	V_C		5.0		V
	$I_{PP} = 17A, T_P = 8/20\mu s$	V_C		7.0		
Junction capacitance	$V_R = 0V, f = 1MHz$	C_J		35		pF

Rating and Characteristic Curves (ACPDZC2V5AHT-HF)

Fig.1 - 8/20 μ s Peak Pulse Current Waveform Acc. IEC 61000-4-5

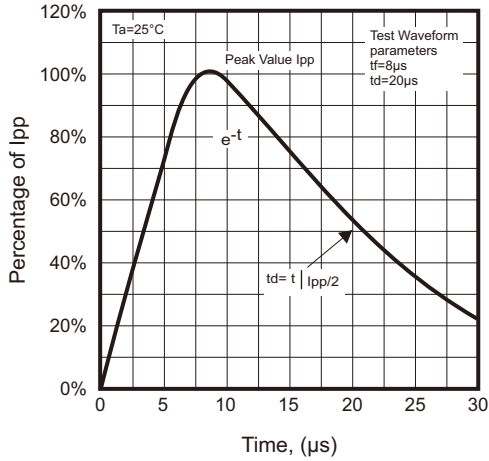


Fig.2 - Power Rating Derating Curve

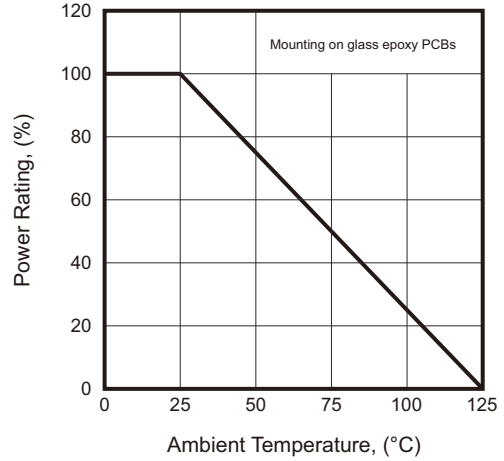


Fig.3 - Typical Clamping Voltage vs. Peak Pulse Current

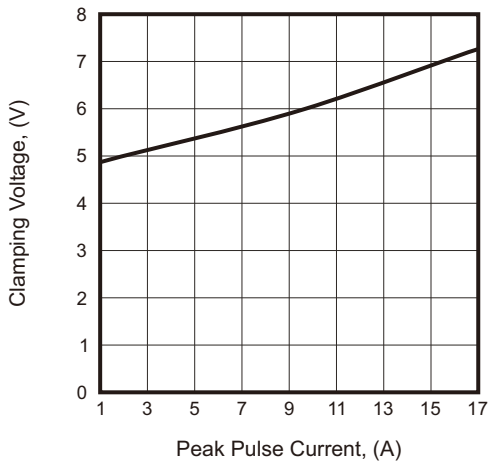
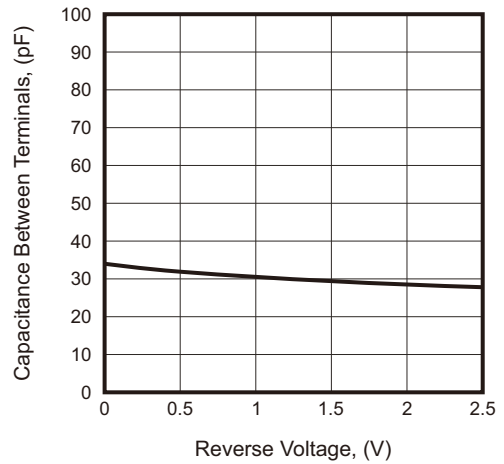
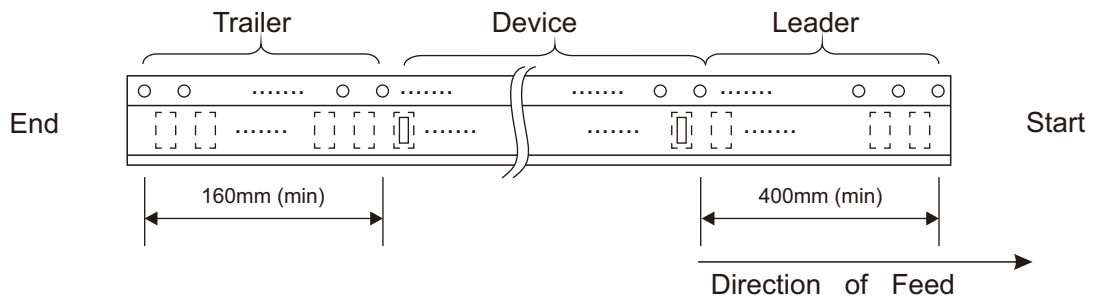
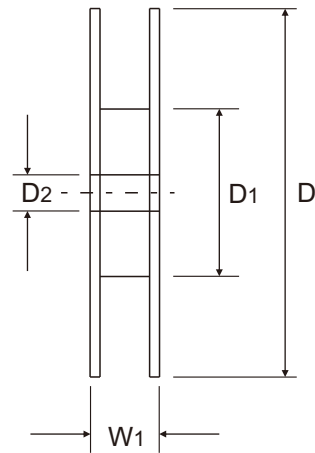
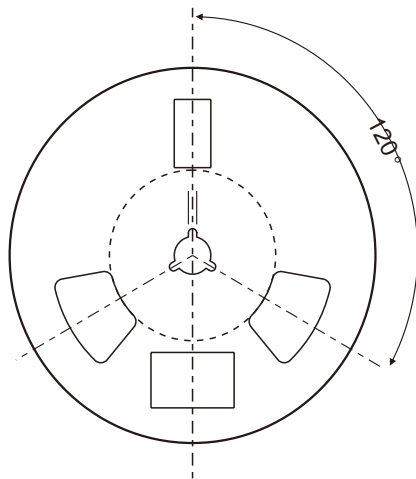
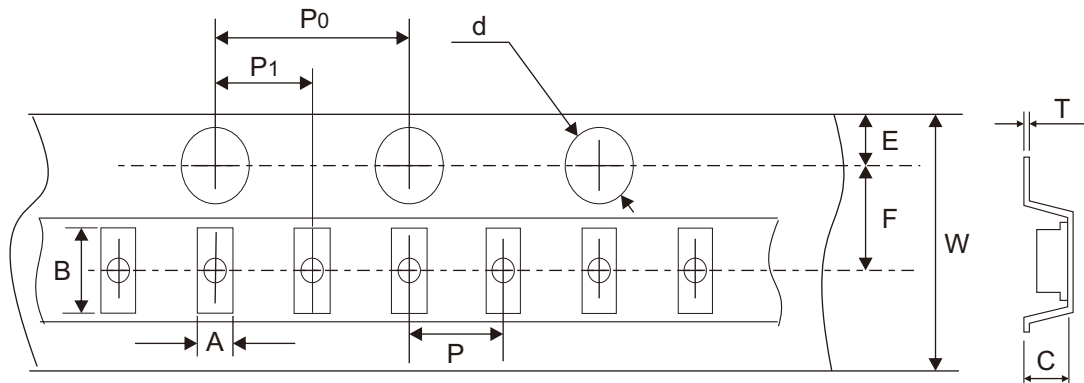


Fig.4 - Typical Capacitance Between Terminals Characteristics



Reel Taping Specification



0201 (DFN0603)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.44 ± 0.03	0.74 ± 0.03	0.40 ± 0.03	$1.50^{+0.10}_{-0.00}$	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.017 ± 0.001	0.029 ± 0.001	0.016 ± 0.001	$0.059^{+0.004}_{-0.000}$	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

0201 (DFN0603)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.05	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.03	$8.00^{+0.30}_{-0.10}$	$12.00^{+0.50}_{-0.00}$
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.002	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.001	$0.315^{+0.012}_{-0.004}$	$0.472^{+0.020}_{-0.000}$

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

REV:A

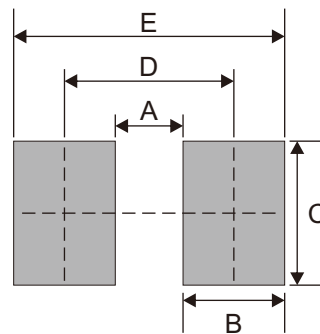
Marking Code

Part Number	Marking Code
ACPDZC2V5AHT-HF	2AT



Suggested P.C.B. PAD Layout

SIZE	0201(DFN0603)	
	(mm)	(inch)
A	0.16	0.006
B	0.24	0.009
C	0.34	0.013
D	0.40	0.016
E	0.64	0.025



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
0201 (DFN0603)	10,000	7