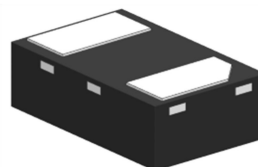


### 1.Description

The AExx11PDA0 is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time. The AExx11PDA0 suited for use in cellular phones, portable device, digital cameras, power supplies and many other portable applications.



### 2.Features

- IEC 61000-4-2 (ESD)
  - $\pm 30\text{kV}$  Contact Discharge
  - $\pm 30\text{kV}$  Air Discharge
- 2000W Peak pulse Power (8/20us)
- IEC 61000-4-4 EFT Protection
  - 40A (5/50ns)
- Halogen free and RoHS compliant
- Protects one power or I/O
- Transient protection for high-speed data lines
- Low clamping voltage
- Low leakage current

### 3.Mechanical Data

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants
- Notebooks / Desktops / Servers
- Portable Instrumentation
- Peripherals & Pagers

### 4.Ordering Information

Part Number	Package	Material	Packing	Quantity per reel	Flammability Rating	Reel Size
AExx11PDA0	DFN1610-2L	Halogen free	Tape & Reel	3,000 PCS	UL 94V-0	7 inches
Marking for the AExx11PDA0 series						
$V_{RWM}$	5V	7V	12V	15V	20V	24V
Marking	5P	07P	12P	15P	20P	24P

Table-1 Ordering information

## 5.Pin Configuration and Functions


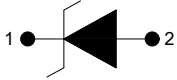
Pin	Name	Description	Outline	Circuit Diagram
1	IO	Connect to IO		
2	GND	Connect to GND		

Table-2 Pin configuration

## 6. Absolute Maximum rating

Over operating free-air temperature range (unless otherwise noted)

Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25°C	P <sub>pk</sub>	-	2000	W
Peak pulse current (tp=8/20us)@25°C	I <sub>PP</sub>		Refer to Table-4	A
ESD (IEC61000-4-2 air discharge) @25°C	V <sub>ESD</sub>	-	±30	kV
ESD (IEC61000-4-2 contact discharge) @25°C	V <sub>ESD</sub>	-	±30	kV
Junction temperature	T <sub>J</sub>	-	150	°C
Operating temperature	T <sub>OP</sub>	-40	125	°C
Storage temperature	T <sub>STG</sub>	-55	150	°C
Lead temperature	T <sub>L</sub>	-	260	°C

Table-3 Absolute Maximum rating

## 7. Electrical Characteristics

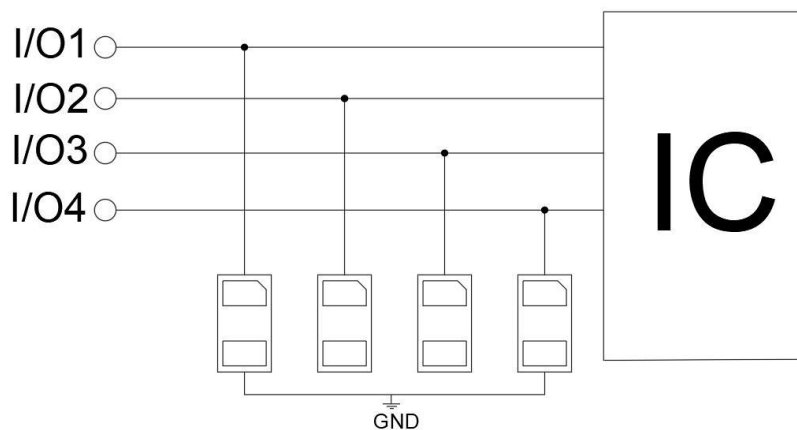
At TA = 25°C unless otherwise noted

Part Number	V <sub>RWM</sub> (max.)	V <sub>BR</sub> (min.)	V <sub>CL@I=1A</sub> (max.)	I <sub>PP</sub> (max.)	V <sub>CL@I=I<sub>PP</sub></sub> (typ.)	I <sub>R</sub> (max.)	C <sub>J</sub> (typ.)
	(V)	(V)	(V)	(A)	(V)	(uA)	(pF)
AE0511PDA0	5.0	6.0	10.0	100	15.0	1.0	950
AE0711PDA0	7.0	7.5	12.0	100	20.0	1.0	850
AE1211PDA0	12.0	13.3	19.0	65	30.0	1.0	360
AE1511PDA0	15.0	16.5	25.0	60	35.0	1.0	320
AE2011PDA0	20.0	22	30.0	50	40.0	1.0	230
AE2411PDA0	24.0	26	35.0	30	45.0	1.0	200

Table 4 Electrical Characteristics

## 8. Typical Application

Typical Interface Application



## 9. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Figure 1. Pulse rating curve

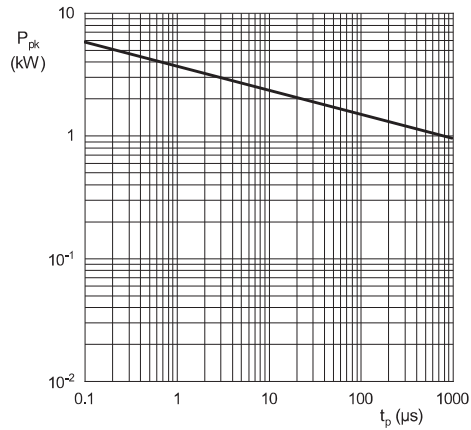


Figure 2 Peak pulse power derating curve

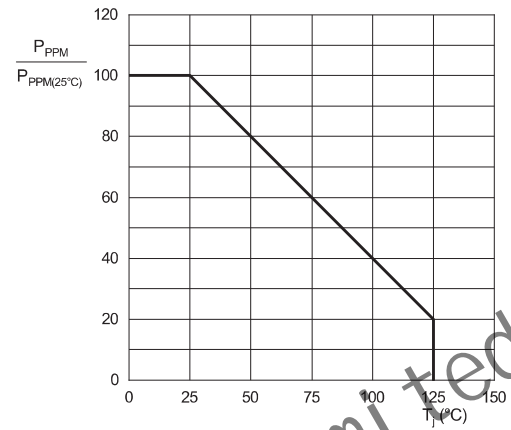


Figure 3 Pulse waveform

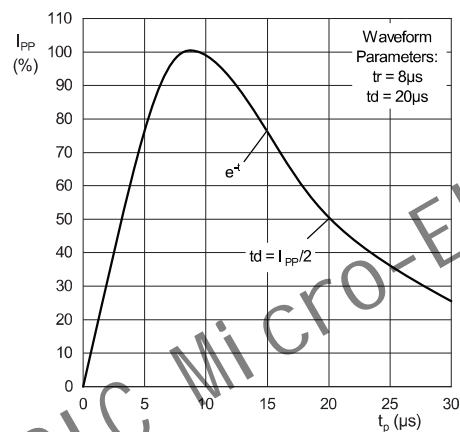
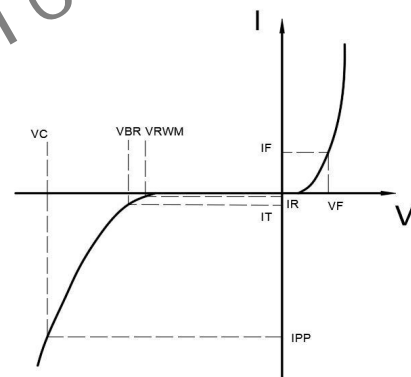
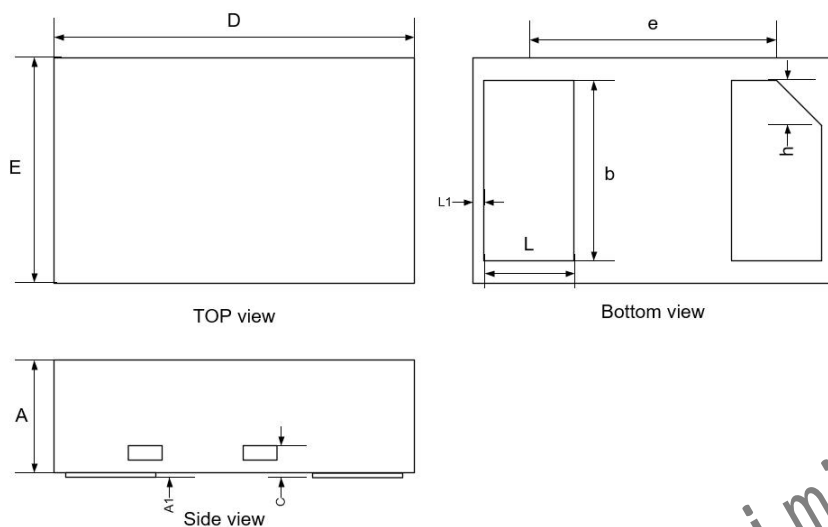


Figure 4 Parameters



## 10.Dimension

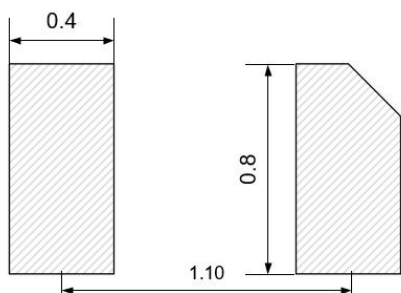


Units in millimeters

SYMBOL	MIN	NOM	MAX
A	0.450	0.500	0.550
A1	0.000	0.020	0.050
b	0.750	0.850	0.950
c	0.080	0.140	0.200
D	1.550	1.600	1.650
e	1.100BSC		
E	0.950	1.000	1.050
L	0.350	0.400	0.450
L1	0.060BSC		

Table-5 product dimensions

## 11.Recommended Land Pattern



Note:

1. Controlling dimension: in millimeters
2. General tolerance:  $\pm 0.05\text{mm}$
3. The pad layout is for reference only

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