

1.Description

The AE0211PBA0 is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time. The AE0211PBA0 suited for use in cellular phones, portable device, digital cameras, power supplies and many other portable applications.



2.Features

- 150 Watts peak pulse power ($t_P=8/20\mu s$)
- Low leakage current
- Low clamping voltage
- Solid-state silicon-avalanche technology
- RoHS compliant

3.Mechanical Data

- Power lines
- Personal digital assistants (PDA's)
- Microprocessors based equipment
- Notebooks, desktops, and servers
- Cell phone handsets and accessories
- Portable electronics
- Peripherals

4.Ordering Information

Part Number	Package	Marking	Material	Packing	Quantity per reel	Flammability Rating	Reel Size
AE0211PBA0	DFN1006-2L	B2	Halogen free	Tape & Reel	10,000 PCS	UL 94V-0	7 inches

Table-1 Ordering information

5.Pin Configuration and Functions

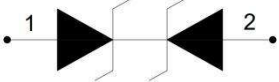
Pin	Name	Description	Outline	Circuit Diagram
1	IO1	Connect to IO		
2	IO2	Connect to IO		

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 _{pk}	-	150	W
Peak pulse current (tp=8/20us)@25°C	I _{pp}	-	20	A
ESD (IEC61000-4-2 air discharge) @25°C	V _{ESD}	-	±30	kV
ESD (IEC61000-4-2 contact discharge) @25°C	V _{ESD}	-	±30	kV
Junction temperature	T _J	-	125	°C
Operating temperature	T _{OP}	-40	125	°C
Storage temperature	T _{STG}	-55	150	°C
Lead temperature	T _L	-	260	°C

Table-3 Absolute Maximum rating

7. Electrical Characteristics

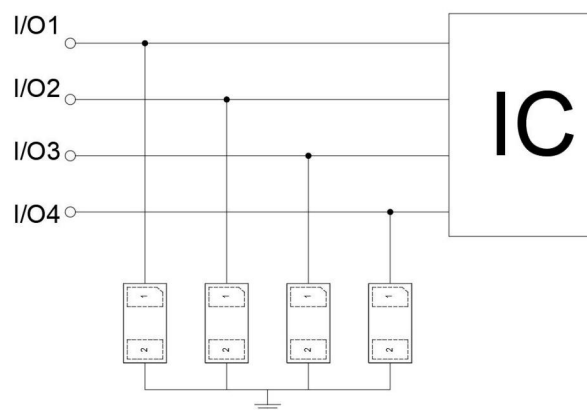
At TA = 25°C unless otherwise noted

Parameters	Symbol	conditions	Min.	Typ.	Max.	Unit
Reverse stand-off voltage	V_{RWM}				2.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	2.8			V
Reverse Leakage Current	I_R	$V_{RWM} = 2V$			0.1	μA
Clamping Voltage	V_{CL}	$I_{PP} = 1A; TP = 8/20\mu s$		4.0		V
		$I_{PP} = 20A; TP = 8/20\mu s$		6.0		
Junction capacitance	CJ	$V_{RWM} = 0V, f = 1MHz$		45		pF

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

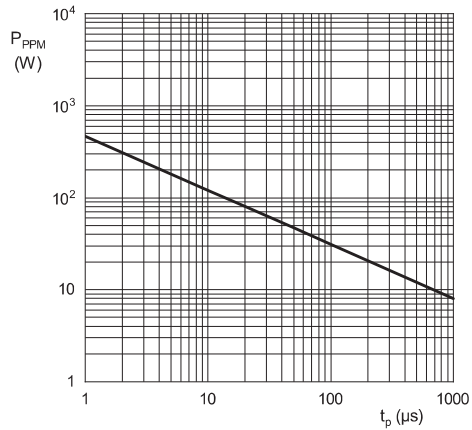


Figure 2 Peak pulse power derating curve

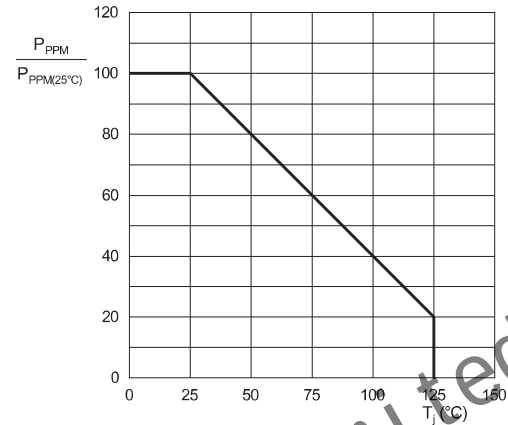


Figure 3 Pulse waveform

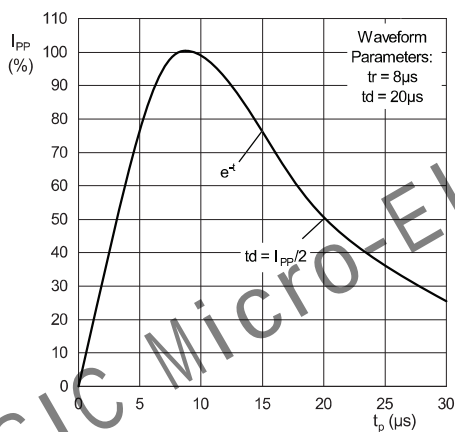
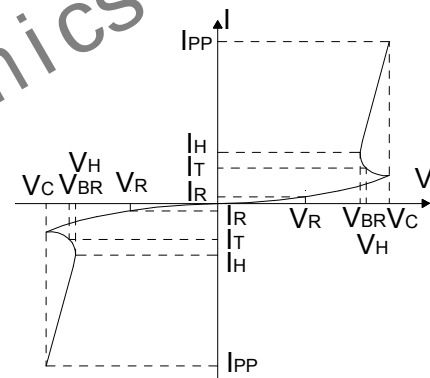
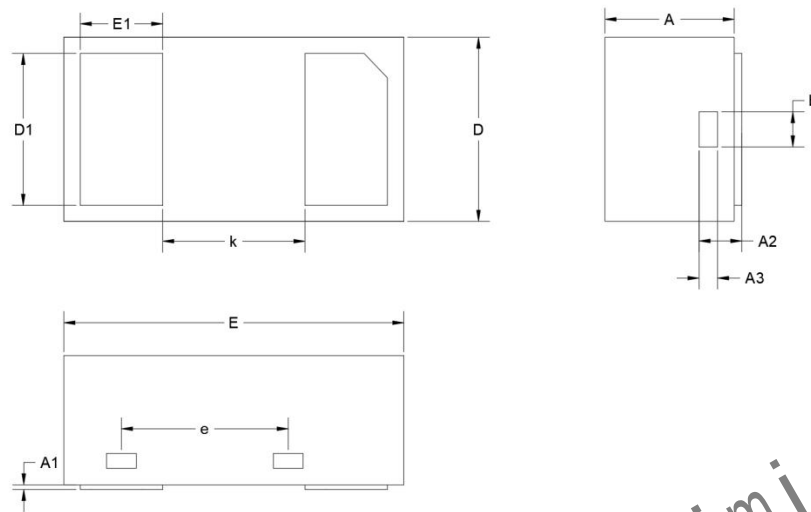


Figure 4 Parameters



10.Dimension

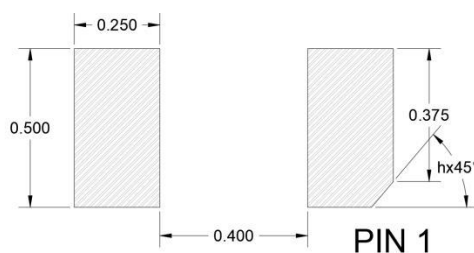


Units in millimeters

Symbol	Min.	Nom.	Max.
A	0.350	0.450	0.550
A1	0.000	0.020	0.050
A2	0.077	0.127	0.207
A3	0.013	0.063	0.113
b	0.070	0.120	0.200
D	0.500	0.600	0.700
D1	0.400	0.500	0.600
E	0.900	1.000	1.100
E1	0.150	0.250	0.350
e	0.310	0.410	0.560
k	0.300	0.400	0.500

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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