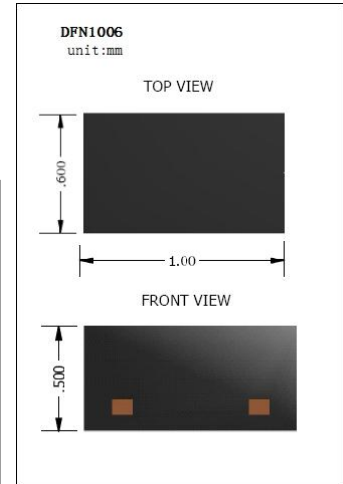
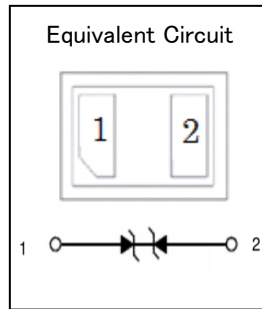


DATA SHEET

ESDB5.0AD1

- ◇ Bi-Directional Transient Voltage Suppressor
- ◇ Low Capacitance and Low Leakage
- ◇ Response Time is Typically < 1 ns
- ◇ IEC61000-4-2 Level 4 ESD Protection
- ◇ ROHS Compliant
- ◇ UL-94 V-0 / Green EMC
- ◇ Matte Tin Lead finish (Pb-Free)

Device Marking Code	
ESDB5.0AD1	AK



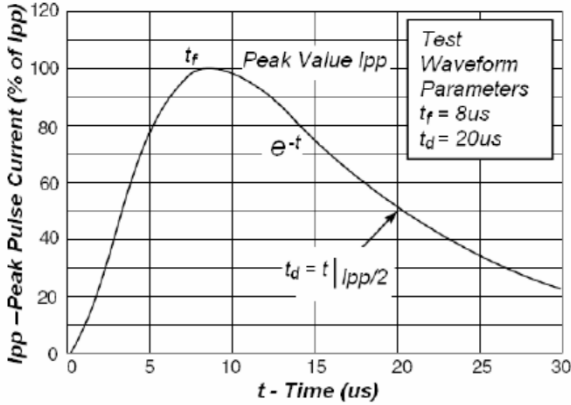
MAXIMUM RATINGS (Ta = 25 °C)

Symbol	Parameter	Value	Units
V _{ESD-Air}	ESD Voltage IEC61000-4-2 Air	±25	kV
V _{ESD-Contact}	ESD Voltage IEC61000-4-2 Contact	±20	kV
PD	Total Power Dissipation on FR-5 Board	200	mW
T _J	Junction Temperature	-55 to 150	°C
T _{STG}	Storage Temperature	-55 to 150	°C
TL	Lead Solder Temperature - Maximum (10 Second Duration)	260	°C

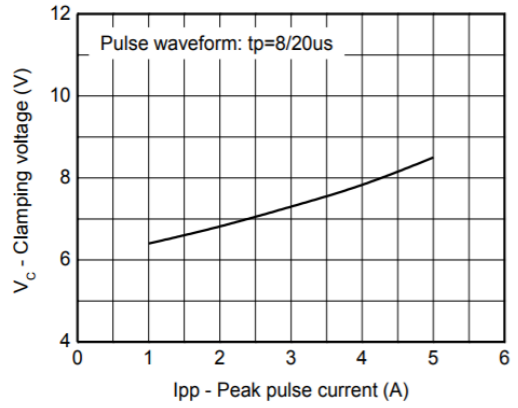
ELECTRICAL CHARACTERISTICS (Ta = 25 °C unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V _{RWM}	Reverse Working Peak Voltage				5.0	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA	5.6		8.0	V
I _{R1}	Reverse Current	V _{RWM} = 5V			0.5	μA
I _{R2}	Reverse Current	V _R = 3.5V			0.3	μA
V _c	Clamping Voltage	I _{pp} = 1A			9.8	V
V _c	Clamping Voltage	I _{pp} = 5.5A			12.5	V
C	Capacitance	V _R = 0V, f = 1MHz			15	pF

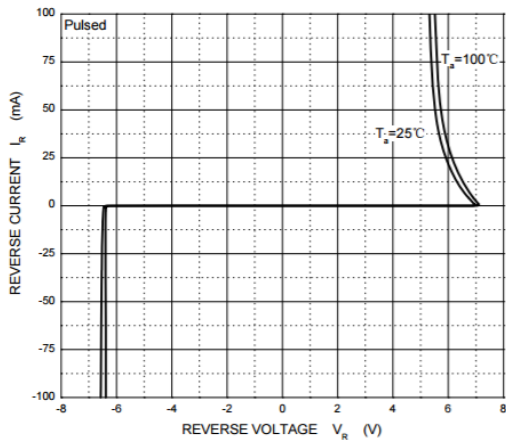
Typical Characteristics



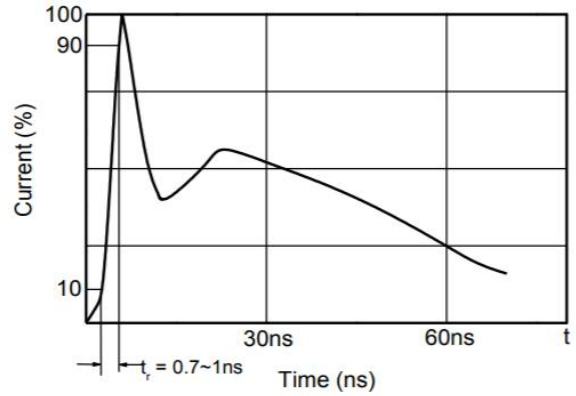
Pulse Waveform



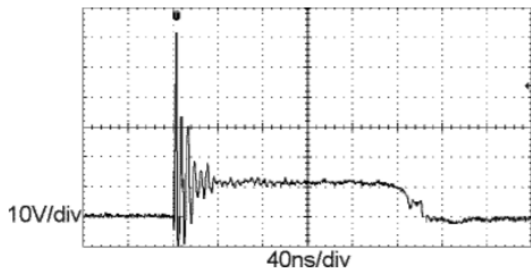
Clamping voltage vs. Peak pulse current



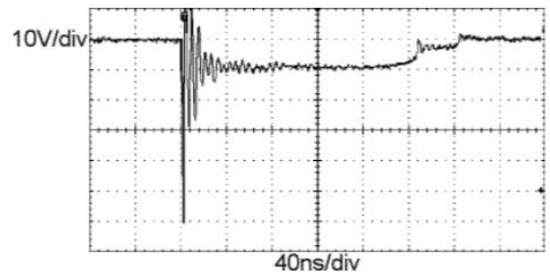
Reverse Characteristics



Contact discharge current waveform per IEC61000-4-2



**ESD clamping
(+8kV contact discharge per IEC61000-4-2)**



**ESD clamping
(-8kV contact discharge per IEC61000-4-2)**

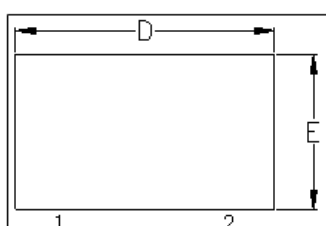
ORDERING INFORMATION

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
ESDB5.0AD1	DFN1006-2L	Tape & Reel 10000pcs /7" Reel	8mm	4mm	Conductive	

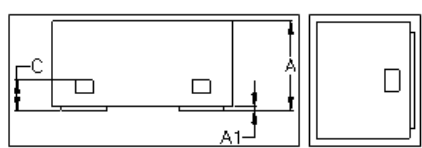
PACKAGE DIMENSIONS

Package outline : DFN1006-2L

Top view

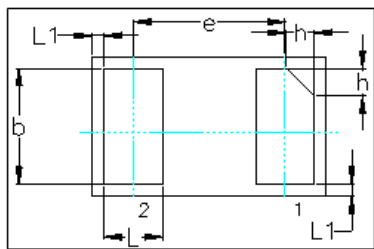


Side view

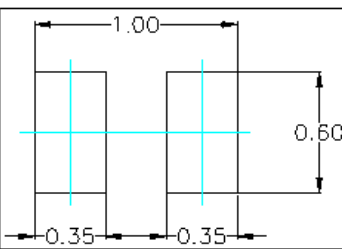


SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	0.00	0.02	0.05
b	0.45	0.50	0.55
C	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.05 REF.		
h	0.07	0.12	0.17

Back view



Soldering Pattern



Notice:

- 1 Lead plating: Pb free solder
- 2 Lead thickness includes solder plating
- 3 Lead frame: Copper A194
- 4 Other Tolerance: ± 0.05
- 5 Dimensions are exclusive of Burrs, Mold Flash and Tie Bar extrusions
- 6 Unit: mm

NOTICE

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