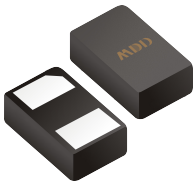

ME5V0U1BABS

1. Features

- 27Watts peak pulse power (tp = 8/20μs)
- Solid-state silicon-avalanche technology
- Capacitance: 0.3pF TYP.
- Low clamping voltage
- Low leakage current
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test Air discharge: ±20KV Contact discharge: ±15KV
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5(Lightning) 7A (8/20us)

2. Application

- USB3.0/3.1/ Type-C
- Thunderbolt interface
- DisplayPort interface
- Handheld portable application

3. Mechanical Data

- Package: DFN1006
- UL Flammability Classification Rating 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

4. Absolute Maximum Rating

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Contact) ESD per IEC 61000-4-2 (Air)	V_{ESD}	±15 ±20	KV
Peak Pulse Power(8/20μs)	P_{PP}	27	W
Reverse Working Voltage	V_{RWM}	5.0	V
Peak Pulse Current	I_{PP}	7	A
Operating Temperature	T_{OPT}	-55~+125	°C
Storage Temperature	T_{stg}	-55~+150	°C

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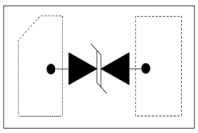
5. Pinning information

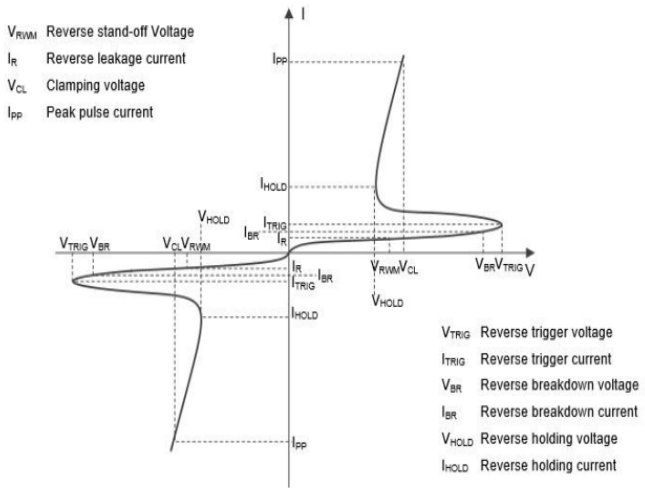
Pin	Polarity	Simplified outline	Equivalent Circuit	Marking	Package
2	Bi			4S	DFN1006

6.Electrical Characteristics(Tamb=25°C)

Parameter	Symbols	Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	I_T=0.1mA	6.0			V
Reverse Leakage Current	I_R	V_{RWM}=5.0V			0.1	uA
Reverse Holding Current	V_{Hold}	IHold=10mA		1.4		V
Clamping Voltage	Vc	I_{pp}=1A , t_p=8/20us		1.7		V
Clamping Voltage	Vc	I_{pp}=7A, TP=8/20us		3.1		V
Junction Capacitance	C_J	V_R =2.5V ,f=1MHz		0.3		pF

7.Electrical Parameters

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage@I_{PP}
V_{RWM}	Reverse Working Voltage
I_R	Maximum Reverse Leakage Current
I_{BR}	Test Current
V_{BR}	Breakdown Voltage@I_T
V_{SB}	Snapback Voltage
I_{SB}	Snapback Test Current
V_{TRIG}	Reverse Trigger Voltage
I_{TRIG}	Reverse Trigger Current
V_{HOLD}	Reverse Holding Voltage
I_{HOLD}	Reverse Holding Current



8.Typical Characteristics

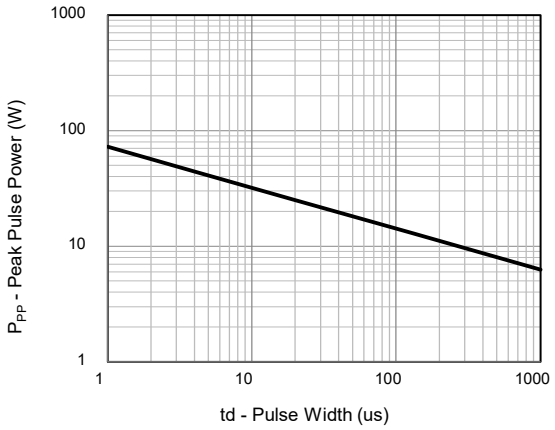


Figure 1. Peak Pulse Power Rating

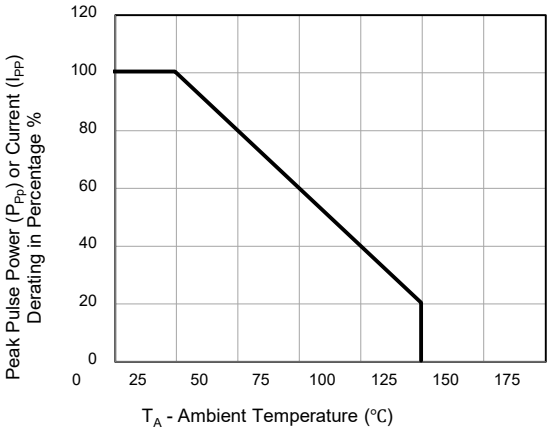


Figure2. Pulse Derating Curve

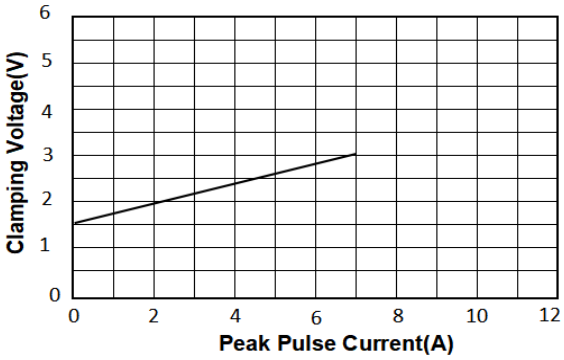


Figure 3. Typical Clamping Voltage

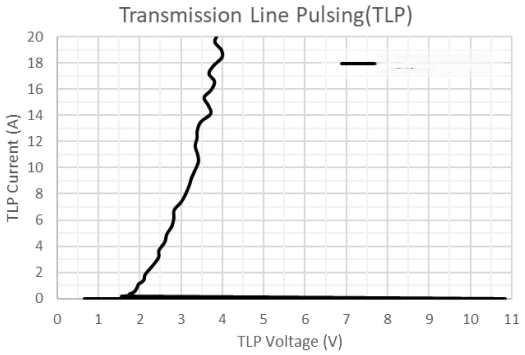
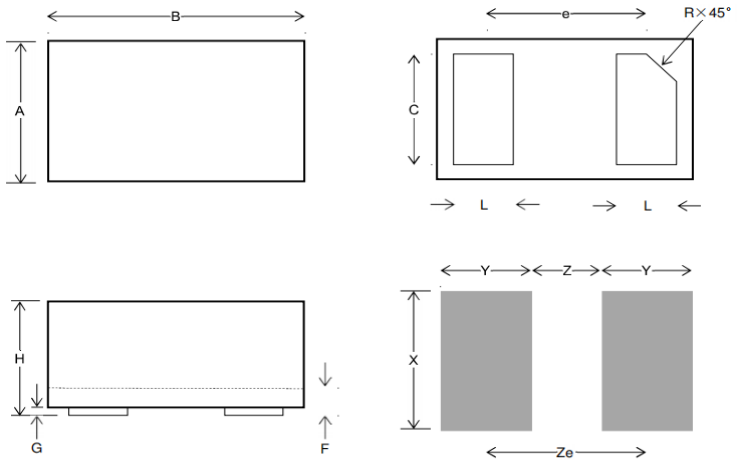


Figure 4. TLP(1/100nS)

9.Outline Drawing

DFN1006 Package Outline Dimensions



DFN1006			
SYMBOL	Millimeters		
	MIN	NOM	MAX
A	0.59	0.62	0.65
B	0.99	1.02	1.05
C	0.45	0.5	0.55
G	-		0.05
H	0.35		0.40
L	0.2	0.25	0.3
e		0.65	
R	-		
X		0.65	
Y		0.5	
Z		0.3	
Ze		0.8	

10. Reel packing

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (pcs)	QTY/Box (pcs)	Q'TY/Carton (pcs)
DFN1006	7'	178	10,000	100,000	400,000

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