

## EBL0501T

### Low Profile , 1-Line ESD protection

#### Description

TVS arrays are designed to protect sensitive electronics from damage or latch-up due to ESD.

It is designed to replace multilayer varistors (MLVs) in portable applications such as cell phones, note- book computers, and other portable electronics. It features large cross-sectional area junctions for conducting high transient currents. They offer desirable characteristics for board level protection including fast response time, low operating and clamping voltage, and no device degradation.

#### Features

- Transient protection for data lines to IEC 61000-4-2 (ESD)  $\pm 15\text{kV}$  (air),  $\pm 8\text{kV}$  (contact) IEC 61000-4-4 (EFT) 40A (tp = 5/50ns)
- Cable Discharge Event (CDE)
- Ultra-small package (1.0 x 0.6 x 0.4mm)
- Protects one data line
- Low clamping voltage
- Working voltage: 5V
- Low leakage current
- Solid-state silicon-avalanche technology
- RoHS compliant package

#### Mechanical Data

- Molded DFN1006
- RoHS/WEEE Compliant
- Nominal Dimensions: 1.0 x 0.6 x 0.4 mm
- Lead Finish: NiPdAu
- Molding compound flammability rating: UL 94V-0
- Marking: Marking code, cathode band
- Packaging : Tape and Reel

#### Packing & Order Information

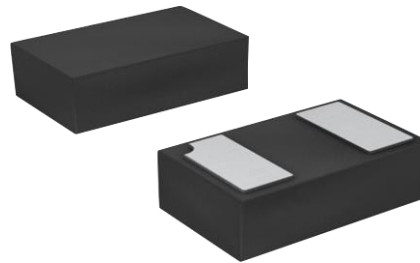
Shipping : 3,000/Reel

#### Applications:

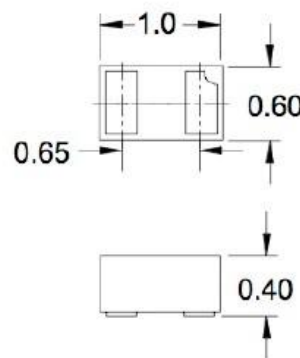
- Cellular Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals
- MP3 Players

#### Packing & Order Information

Shipping : 3,000/Reel

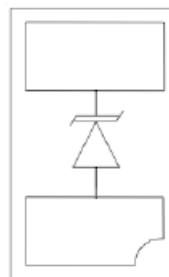


**RoHS**  
COMPLIANT



#### Graphic symbol

**DFN1006 package**



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### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

#### Maximum Ratings (Tc=25°C unless otherwise noted)

Symbol	Parameter	EBL0501T	Unit
Ppk	Peak Pulse Power (tp = 8/20µs)	25	W
Ipp	Maximum Peak Pulse Current (tp = 8/20µs)	2	A
VESD	ESD per IEC 61000-4-2 (Air)	+/- 20	KV
	ESD per IEC 61000-4-2 (Contact)	+/- 15	
TJ	Operating Temperature	-55 to +125	°C
TSTG	Storage Temperature	-55 to +150	°C

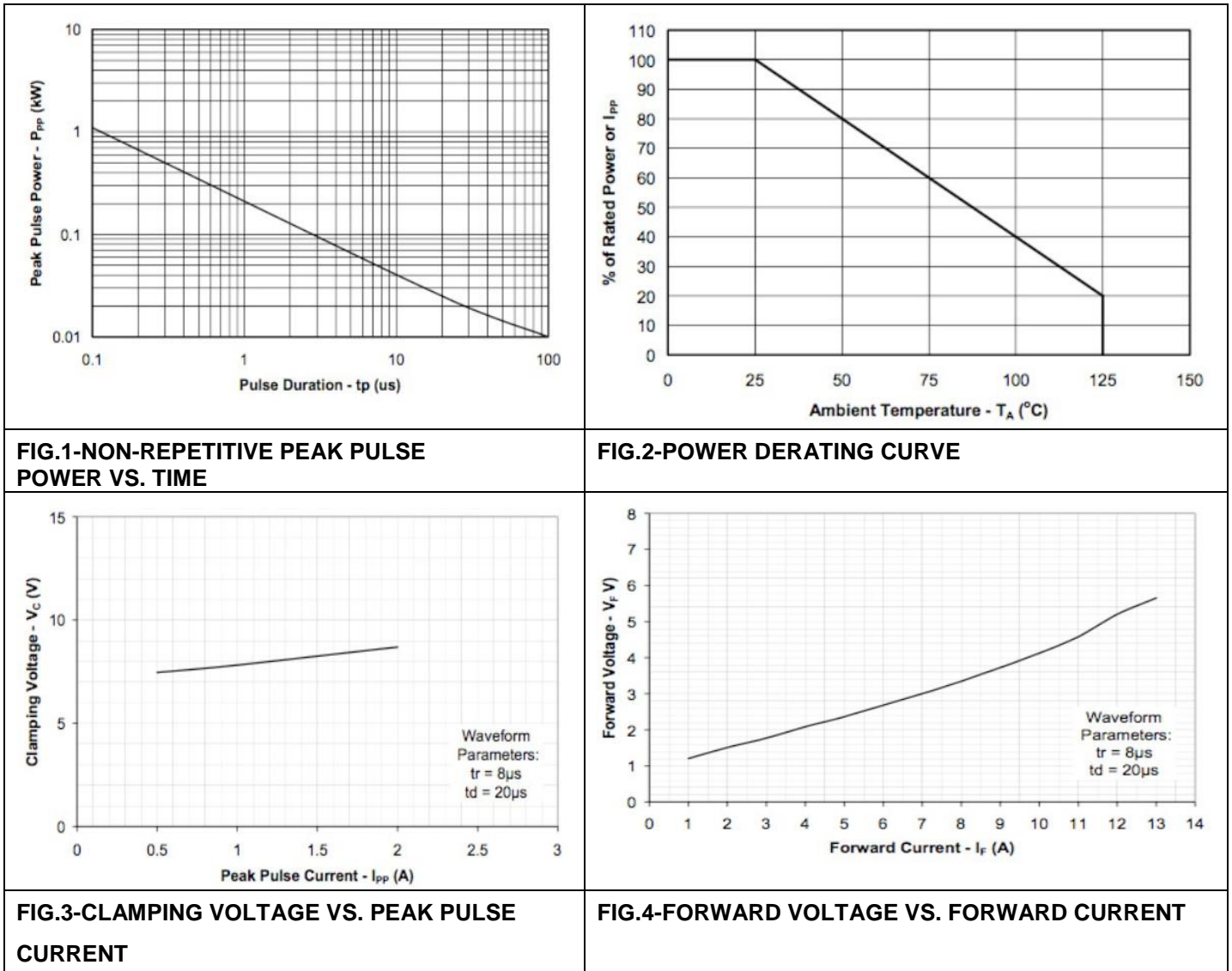
#### Absolute ratings (limiting value)

Symbol	Parameter	Conditions	Min	Typ.	Max.	Units
VRWM	Reverse Stand-Off Voltage				5	V
VBR	Reverse Breakdown Voltage	It=1mA	6			V
IR	Reverse Leakage Current	VRWM=5V , T=25°C			0.25	uA
VF	Forward Voltage	IF=10mA		1	1.2	V
VC	Clamping Voltage	IPP=2A , tp=8/20µs			12.5	V
Cj	Junction Capacitance	VR=0V , f=1 MHz			10	pF
Cj	Junction Capacitance	VR=3.3V , f=1 MHz		4.5		pF

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■ Typical Device Characteristics



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### Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE

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