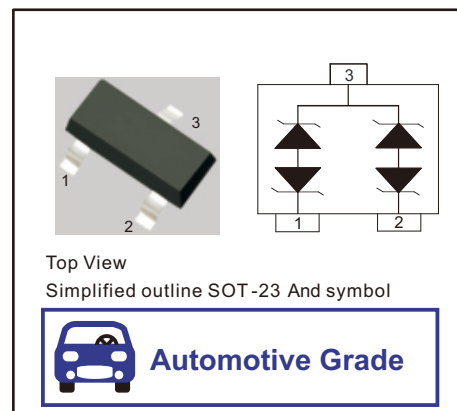


## Transient Voltage Suppressors for ESD Protection

### General Description

The AT-ESDB18V0T2CA is designed to protect voltage sensitive components that require ultra-low capacitance from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium.



### FEATURES

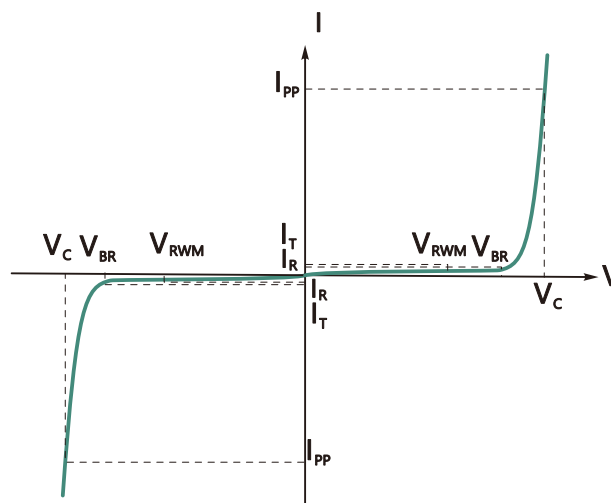
- Stand-off voltage: 18V Max.
- Transient protection for each line according to  
 IEC61000-4-2(ESD):  $\pm 30\text{kV}$  (contact)  $\pm 30\text{kV}$  (air)  
 IEC61000-4-4(Lightning): 10A (8/20 $\mu\text{s}$ )
- Ultra-low capacitance:  $C_j = 20\text{pF}$  typ.
- Low leakage current
- Qualified to AEC-Q101 Standards for High Reliability

### Applications

- Computers and peripherals;
- Audio and video equipment;
- Communication systems;
- Portable electronics.

### Electronics Parameter

Parameter	Symbol
Maximum Reverse Peak Pulse Current	$I_{PP}$
Clamping Voltage @ $I_{PP}$	$V_C$
Peak Reverse Working Voltage	$V_{RWM}$
Reverse Leakage Current @ $V_{RWM}$	$I_R$
Breakdown Voltage @ $I_T$	$V_{BR}$
Test Current	$I_T$





MAXIMUM RATINGS( $T_a=25^{\circ}\text{C}$  unless otherwise noted)

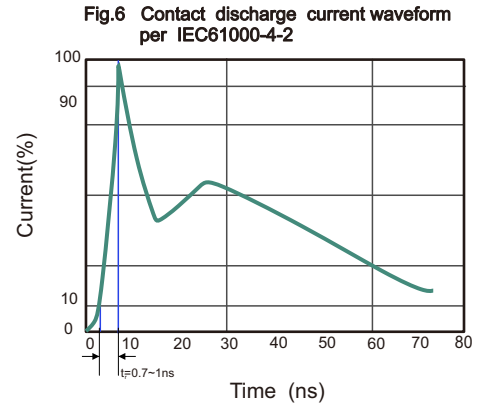
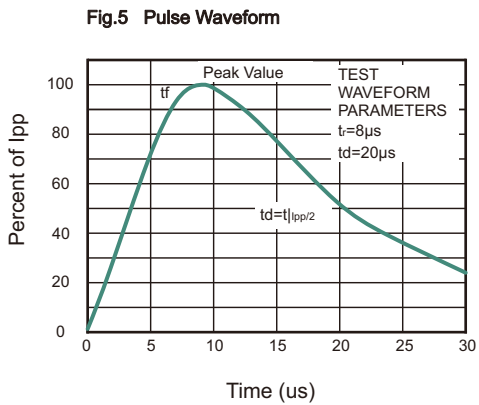
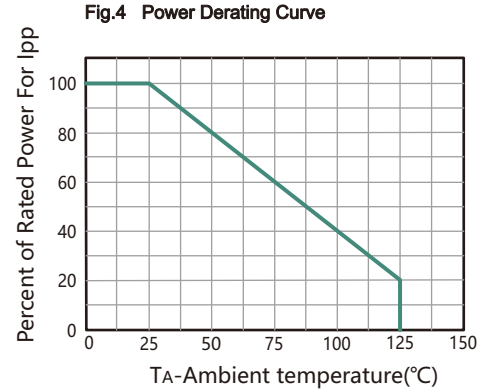
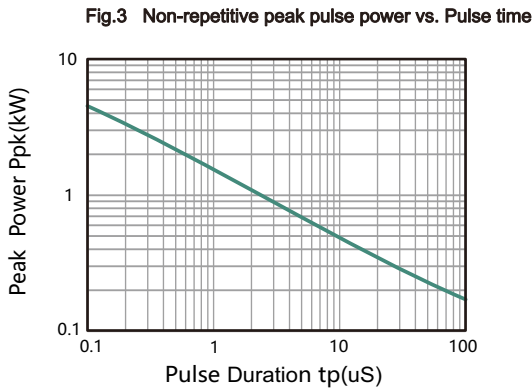
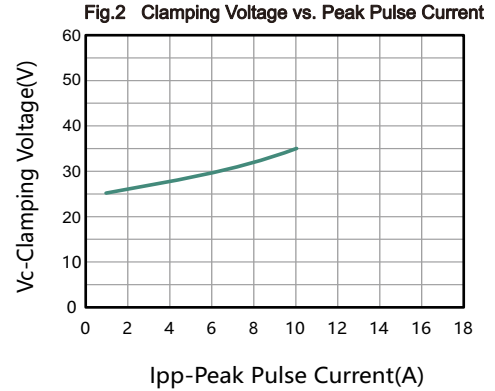
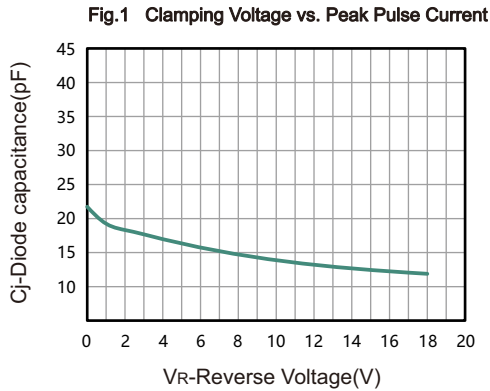
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{S}$ )	Ppk	350	W
Peak Pulse Current	Ipp	10	A
ESD per IEC 61000-4-2(Air)	VESD	$\pm 30$	KV
ESD per IEC 61000-4-2(Contact)		$\pm 30$	
Operating Temperature Range	TJ	-55~+125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS( $T_a=25^{\circ}\text{C}$  unless otherwise noted)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse Stand-off Voltage	VRWM				18	V
Breakdown Voltage	VBR	IT=1mA	20.5		26	V
Reverse Leakage Current	IR	V=VRWM, $T_a=25^{\circ}\text{C}$			1	$\mu\text{A}$
Clamping Voltage	VC	IPP=1A, tp=8/20 $\mu\text{s}$		25		V
		IPP=10A, tp=8/20 $\mu\text{s}$			35	
Junction Capacitance	Cj	VR=0V , f=1MHz		20	50	pF

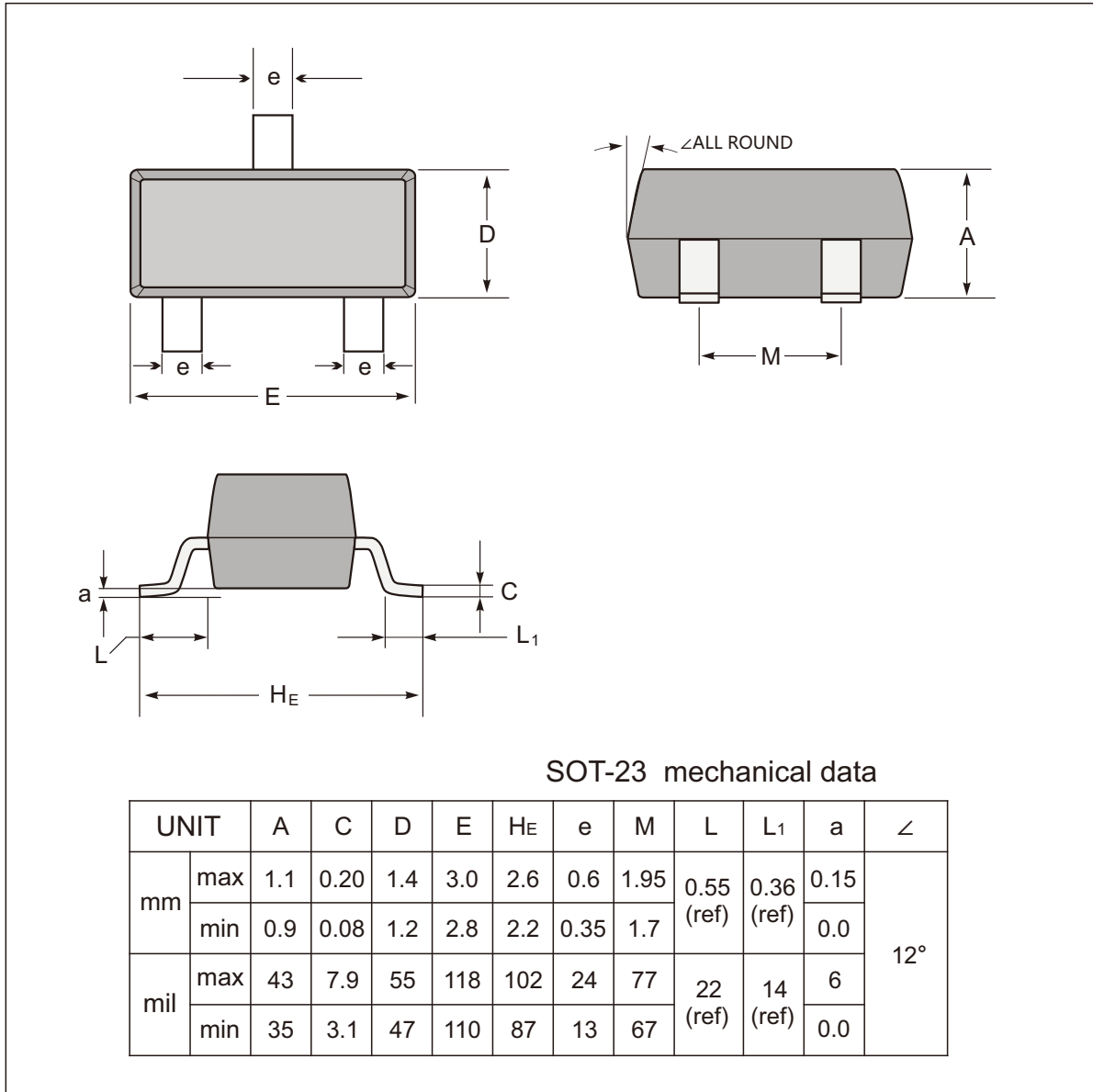


## Typical Characteristics

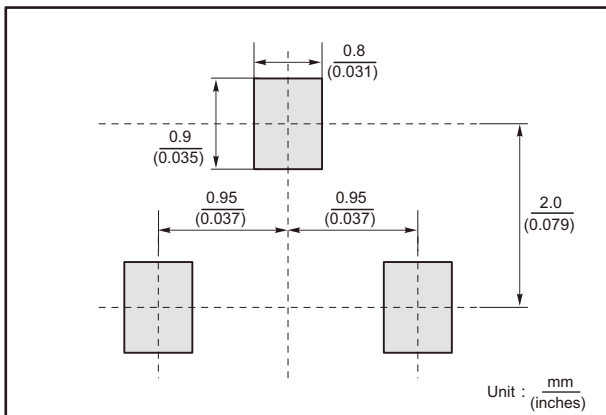




### SOT-23 Package Outline Dimensions



#### The recommended mounting pad size



#### Marking

Type number	Marking code
ESDB18V0T2CA	2K



## Important Notice and Disclaimer

Jingdao Microelectronics reserves the right to make changes to this document and its products and specifications at any time without notice.

Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

Jingdao Microelectronics makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, not does Jingdao Microelectronics assume any liability for application assistance or customer product design.

Jingdao Microelectronics does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Jingdao Microelectronics.

Jingdao Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of Jingdao Microelectronics.