



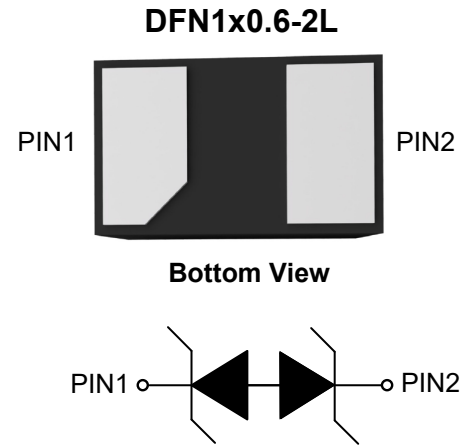
ESDB5V0ADB Transient Voltage Suppressor

Descriptions

The ESDB5V0ADB is a Bi-directional transient voltage suppressor (TVS) to protect sensitive electronic components from electrostatic discharge (ESD). It is particularly well-suited for cellular phones, PMP, MID, PDA, digital cameras and other electronic equipment.

The ESDB5V0ADB is safely dissipating ESD strikes to meet the ESD immunity testing of IEC61000-4-2 level 4.

The ESDB5V0ADB is available in DFN1x0.6-2L package. Standard products are Pb-free and Halogen-free.



Features

- Small Body Outline Dimensions
- Low reverse stand-off voltage: 5.0V
- Peak Power up to 100 Watts @ 8 x 20 μ s Pulse
- Low leakage current
- Transient protection for each line according to IEC61000-4-2 (ESD): ± 30 kV (contact discharge)

Applications

- Cell phone handsets and accessories
- Digital cameras
- Portable Electronics
- Power supplies

Marking Code



Top View

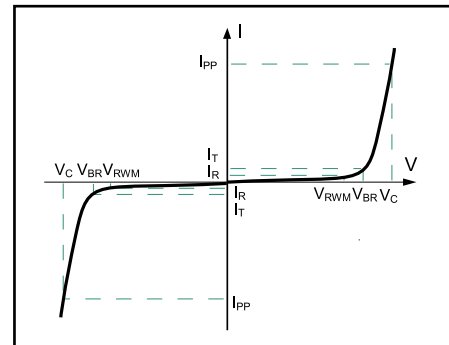


Absolute Maximum Ratings ($T_A=25^\circ\text{C}$)

Parameter		Symbols	Value	Unit
IEC61000-4-2 ESD Voltage	Air Model	V_{ESD}	± 30	KV
	Contact Model		± 30	
Peak Pulse Power Dissipation ($t_p = 8/20\mu\text{s}$)		P_{PP}	100	W
Peak Pulse Current ($t_p = 8/20\mu\text{s}$)		I_{PP}	8	A
Junction Temperature		T_J	125	$^\circ\text{C}$
Operating Temperature Range		T_{OP}	-40 to +85	$^\circ\text{C}$
Storage Temperature Range		T_{STG}	-50 to +150	$^\circ\text{C}$

Electrical Parameter

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



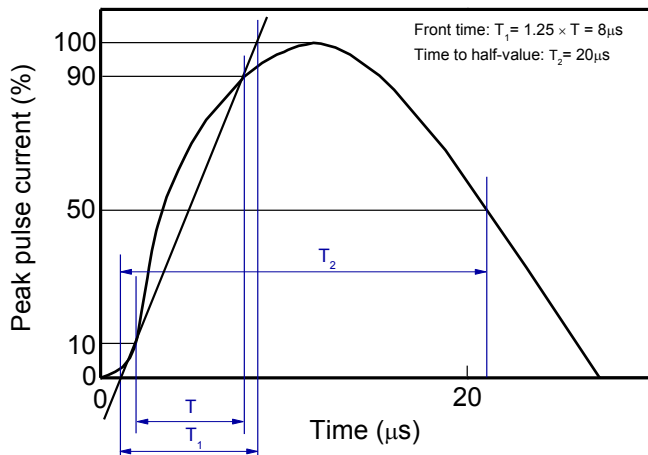
V-I characteristics for a Bi-directional TVS

Electrical Characteristics ($T_A=25^\circ\text{C}$)

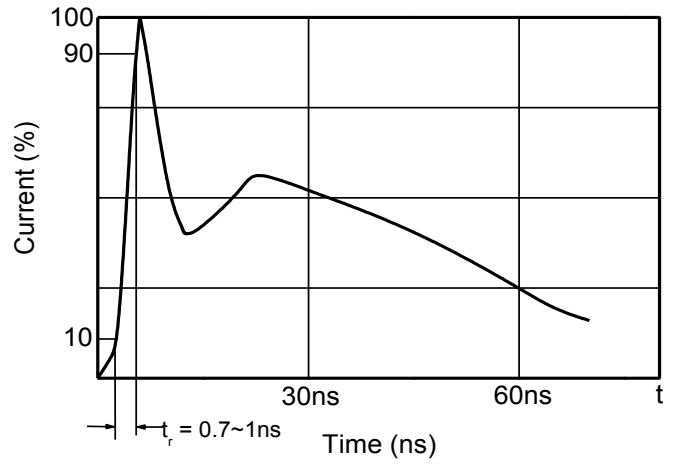
Parameter	Symbols	Min.	Typ.	Max.	Unit
Reverse stand-off voltage	V_{RWM}	--	--	5	V
Reverse Leakage Current at $V_{RWM} = \pm 5\text{ V}$	I_R	--	--	0.1	μA
Breakdown Voltage at $I_T = 1\text{ mA}$	$V_{R(BR)}$	5.8	--	8	V
Clamping Voltage at $I_{PP} = 1\text{ A}$, $t_p = 8/20\mu\text{s}$ at $I_{PP} = 8\text{ A}$, $t_p = 8/20\mu\text{s}$	V_C	--	--	9.5 15	V
Junction Capacitance at $V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_J	--	12	15	pF



Typical Characteristic Curves



8/20 μs waveform per IEC61000-4-5



Contact discharge current waveform per IEC61000-4-2

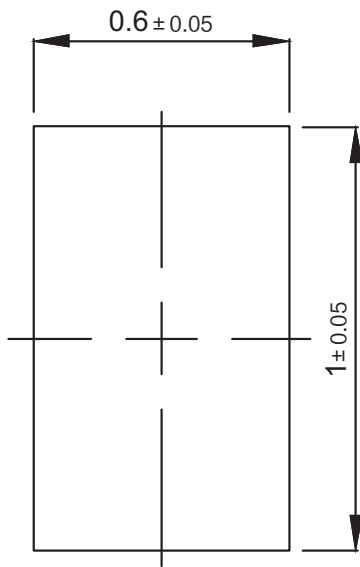


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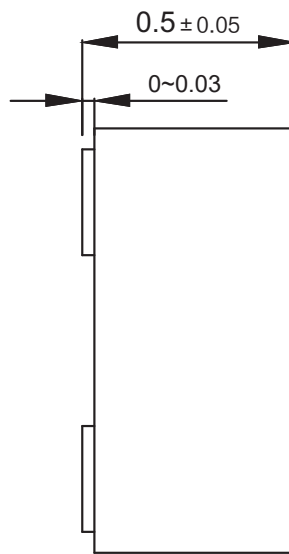
Package Outline

DFN1x0.6-2L-0011

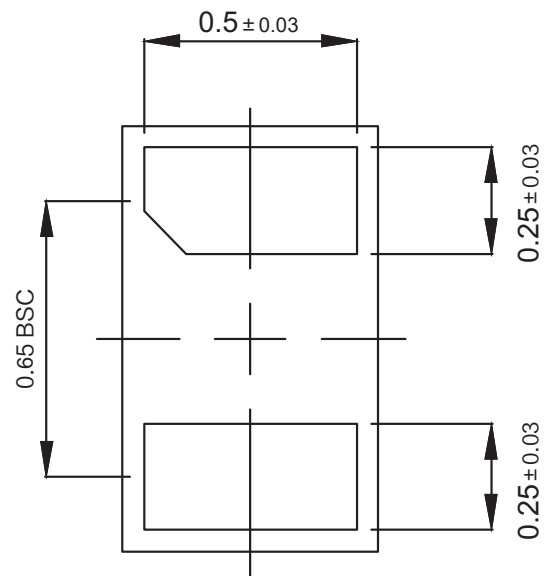
Dimensions in mm



TOP VIEW



SIDE VIEW



BOTTOM VIEW

Ordering Information

Device	Package	Shipping
ESDB5V0ADB	DFN1x0.6-2L	10,000PCS/Reel&7inches