

TVL 01005 01 AB0 Engineering Specification

1. Scope

TVL 01005 01 AB0 is a TVS diode designed to protect one power/control line or one low speed signal line from overvoltage hazard of Electrostatic Discharge (**ESD**).

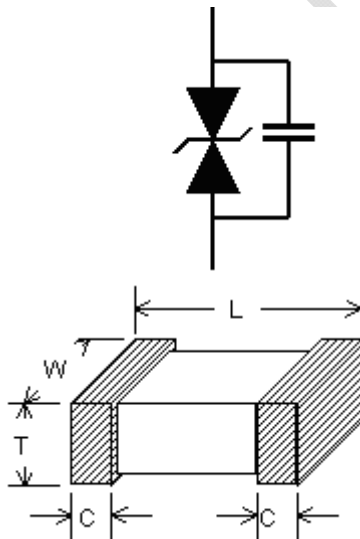
These interfaces can be used in computer interfaces protection, microprocessors protection, serial and parallel ports protection, control signal lines protection, power lines on PCB protection, latchup protection, etc. The ESD protection of TVS meets the immunity standard of IEC 61000-4-2, level 4 ($\pm 8\text{kV}$ contact discharge).

2. Explanation of Part Number

TV	L	01005	01	AB0
(1)	(2)	(3)	(4)	(5)

- (1) Product Type : TV=TVS Diode
- (2) Capacitance Code : L=Low Capacitance
- (3) Package Size Code
- (4) Channel Code : 01=1 Channels
- (5) Specialized Specification Code

3.. Circuit Diagram & Dimension



Unit: mm	0402
L	0.40 \pm 0.03
W	0.21 \pm 0.03
T	0.21 \pm 0.03
C	0.11 \pm 0.03

4. Specifications

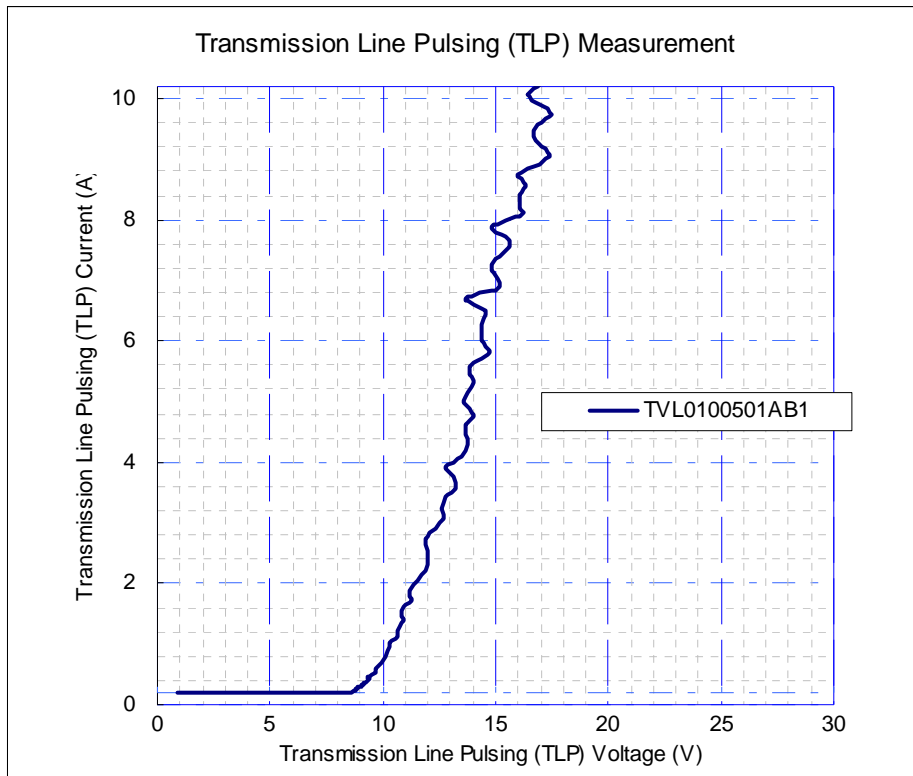
4.1. ABSOLUTE MAXIMUM RATINGS

PARAMETER	PARAMETER	RATING	UNITS
Operating Supply Voltage	V_{DC}	5	V
Operating Temperature range	T_o	-40 ~ +85	°C
Storage Temperature range	T_s	-55 ~ +125	°C
Lead Soldering Temperature	T_{SOL}	260 (10 sec.)	°C
ESD per IEC 61000-4-2 (Air)	V_{ESD}	±15	kV
ESD per IEC 61000-4-2 (Contact)	V_{ESD}	±8	kV

4.2. ELECTRICAL CHARACTERISTICS

ELECTRICAL CHARACTERISTICS						
PARAMETER	SYMBOL	CONDITIONS	MINI	TYP	MAX	UNITS
Reverse Stand-Off Voltage	V_{RWM}	$T=25\text{ }^{\circ}\text{C}.$			5	V
Reverse Leakage Current	I_{Leak}	$V_{RWM} = 6\text{V}, T=25\text{ }^{\circ}\text{C}.$			1	μA
Reverse Breakdown Voltage	V_{BV}	$I_{BV} = 1\text{mA}, T=25\text{ }^{\circ}\text{C}.$	6			V
Clamping Voltage	V_{CL}	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}, T=25\text{ }^{\circ}\text{C}.$			15	V
Diode Capacitance	C_p	$V_R = 0\text{V}, f = 1\text{MHz}, T=25\text{ }^{\circ}\text{C}.$		5		pF

4.3 TYPICAL CHARACTERISTICS



Preliminary