

TVU FB02 01 AD0 Engineering Specification

1. Scope

TVU FB02 01 AD0's are TVS diodes designed to protect one power/control line or one low speed signal line from overvoltage hazard of Electrostatic Discharge (**ESD**), Electrical Fast Transients (**EFT**) and **Lightning**.

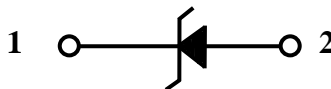
These interfaces can be used in computer interfaces protection, microprocessors protection, serial and parallel ports protection, control signal lines protection, power lines on PCB protection, latchup protection, etc. The ESD protection of TVS arrays meets the immunity standard of IEC 61000-4-2, level 4 ($\pm 15\text{kV}$ air, $\pm 8\text{kV}$ contact discharge).

2. Explanation of Part Number

<u>TV</u>	<u>U</u>	<u>FB02</u>	<u>01</u>	<u>AD0</u>
(1)	(2)	(3)	(4)	(5)

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

3.. Circuit Diagram /Pin Configuration



Pin configurations

4.. Specifications

4.1. ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Units
Peak pulse power (tp=8/20us)	Ppk	120	W
Maximum peak pulse current (tp=8/20us)	Ipp	5	A
ESD Per IEC61000-4-2 (Air)	Vpp	+/-15	KV
ESD Per IEC61000-4-2 (Contact)		+/-10	KV
Maximum lead temperature for soldering during 10s	T _L	260	°C
Storage temperature range	Tstg	-55 to +150	°C
Operating temperature range	Top	-55 to +150	°C

4.2. ELECTRICAL CHARACTERISTICS

Parameter	V _{RWM} (V)	I _R (uA) @ V _{RWM}	V _{BR} (V) @ I _T	I _T	C (pF)		V _C (V) @ I _{PP} =1A	V _F (V) @ I _F =10mA
	Max.	Max.	Min.	mA	Typ.	Max.	Max.	Typ.
Value	5	1.0	6.2	1.0	0.5	0.9	8.0	0.7

4.3. TYPICAL CHARACTERISTICS

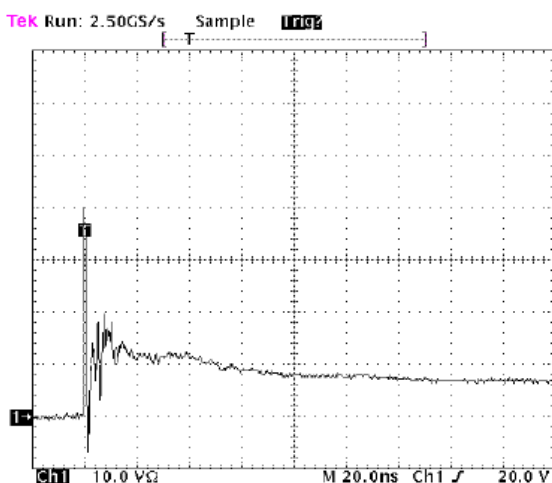


Figure 2. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000-4-2

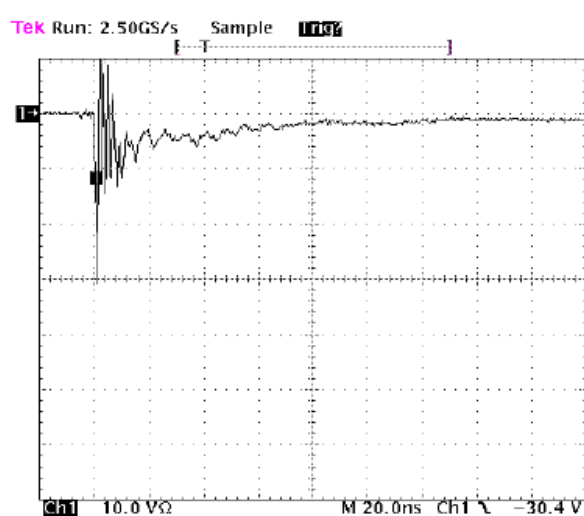
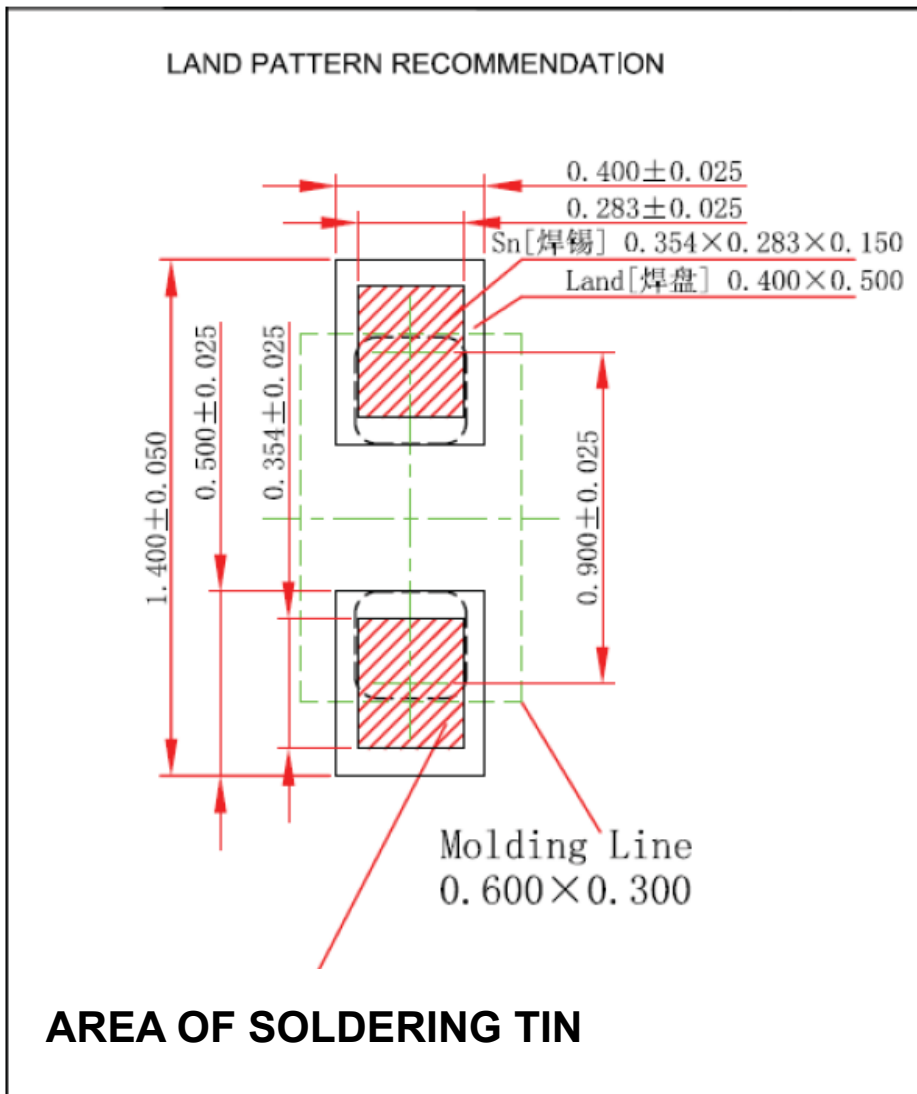
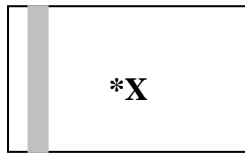


Figure 3. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000-4-2

5.. LAND LAYOUT

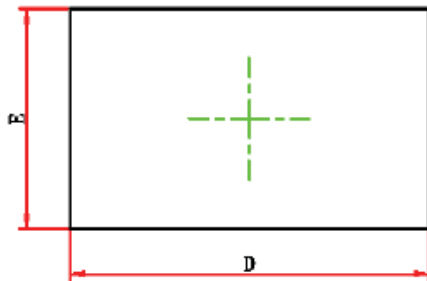


6.. MARKING CODE:

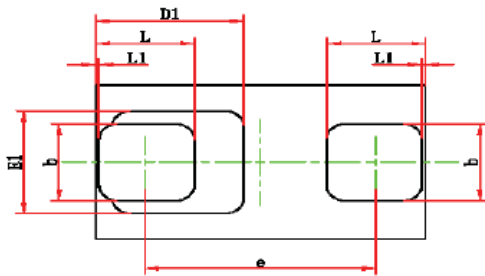


- * = Month Code (A~Z)
- X = Product Code

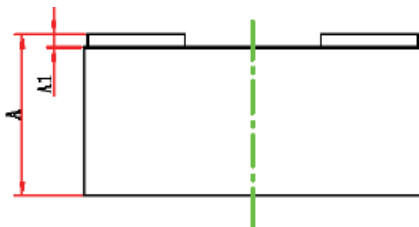
7.. Mechanical Details



Top View



Bottom View



Side View

PACKAGE DIMENSIONS

Symbol	Dimensions in millimeter	
	Min.	Max.
A	0.450	0.550
A1	0.010	0.070
D	0.950	1.050
E	0.550	0.650
D1	0.450 Ref.	
E1	0.400 Ref.	
b	0.275	0.325
e	0.675	0.725
L	0.275	0.325
L1	0.010 Ref.	

7.1. Taping Quantity:
5,000pcs/ Reel