RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

TAB03L THRU TAB24L

Unidirectional Ultra Low Capacitance TVS Array

DESCRIPTION

The TABxxL Series are ultra low capacitance transient voltage suppressor arrays, designed to protect applications such as portable electronics and SMART phones. This series is available in unidirectional configurations and is rated at 350 Watts for an 8/20μs waveshape.

The TABxxL and Series meets IEC 61000-4-2 (ESD) and IEC 61000-4-4 (EFT) requirements. At higher operating frequencies or faster edge rates, insertion loss and signal integrity are a major concern. This series offers an ultra low capacitance and low leakage current in a miniature SOD-323 package.

FEATURES

- ✧IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- ✧IEC61000-4-4 (EFT) 40A (5/50ηs)
- ✧IEC61000-4-5 (Lightning)
- ✧Protects one I/O line (bidirectional)
- ✧Low clamping voltage
- ✧Working voltages : 3V, 5V, 8V, 12V, 15V, 24V
- ✧Low leakage current
- ✧Response Time is < 1 ns
- ✧P/N suffix V means AEC-Q101 qualified, e.g:TAB03LV
- ✧P/N suffix V means Halogen-free

MACHANICAL DATA

- ✧SOD-323 package
- ✧Flammability Rating: UL 94V-0
- ✧Packaging: Tape and Reel
- ✧High temperature soldering guaranted:260℃/10s
- ✧Reel size: 7 inch
- ✧MSL1

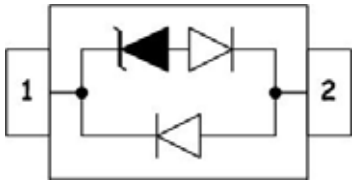
ORDERING INFORMATION

- ✧ Device: TABxxL
- ✧Package: SOD-323
- ✧Material: Halogen free
- ✧Packing: Tape & Reel
- ✧Quantity per reel: 3,000pcs

APPLICATIONS

- ✧Cell Phone Handsets and Accessories
- ✧Microprocessor based equipment
- ✧Personal Digital Assistants (PDA's)
- ✧Notebooks, Desktops, and Servers
- ✧Portable Instrumentation
- ✧Peripherals
- ✧USB Interface

PIN CONFIGURATION



PACKAGE OUTLINE



2018-10/01
REV:A

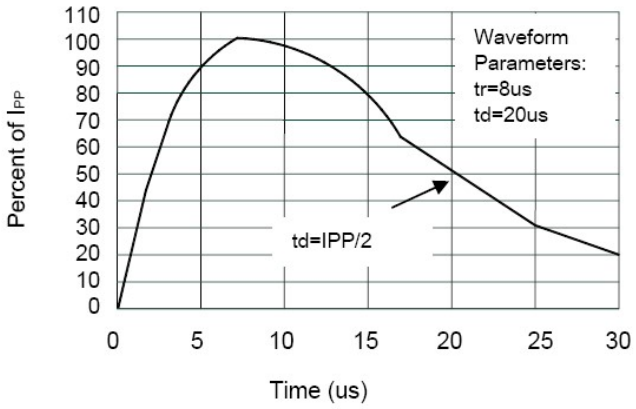
ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±15 ±8	kV
P_{PP}	Peak Pulse Power (8/20μs)	350	W
T_{OPT}	Operating Temperature	-55/+150	°C
T_{STG}	Storage Temperature	-55/+150	°C
T_L	Lead Soldering Temperature	260	°C

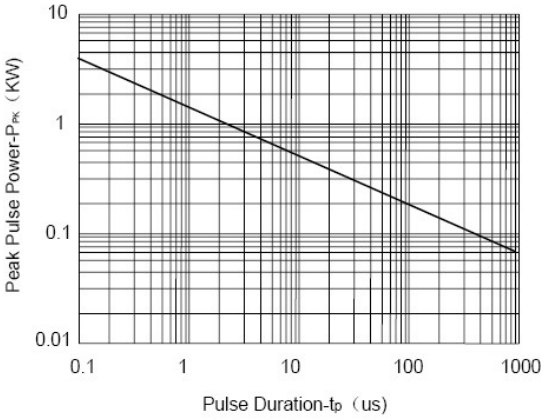
ELECTRICAL CHARACTERISTICS (Tamb=25°C)

PART NUMBER	DEVICE MARKING	V_{RWM} (V)	V_B@1mA (V)	V_C@1A (V)	V_C@Ipp (V)		V_C@Ipp (V)		I_R (μA)	C_T (pF)
		Max	Min	Max	Max	Ipp (A)	Max	Ipp (A)	Max	Typ.
TAB03L	C	3.0	4.0	7.0	13.9	8	20.0	20	5	0.8
TAB05L	A	5.0	6.0	9.8	18.3	8	20.0	18	1	0.8
TAB08L	B	8.0	8.5	13.4	18.5	8	24.0	18	1	0.8
TAB12L	D	12.0	13.3	19.0	24.0	6	28.6	12	1	0.8
TAB15L	E	15.0	16.7	24.0	29.0	5	31.8	10	1	0.8
TAB24L	H	24.0	26.7	43.0	45.0	3	56.0	6	1	0.8

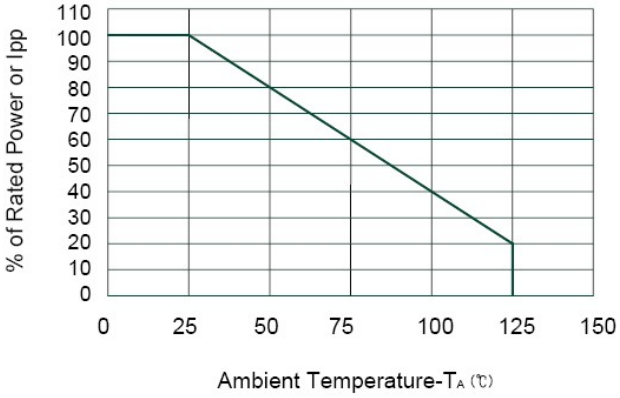
RATING AND CHARACTERISTICS CURVES (TAB03L THRU TAB24L)



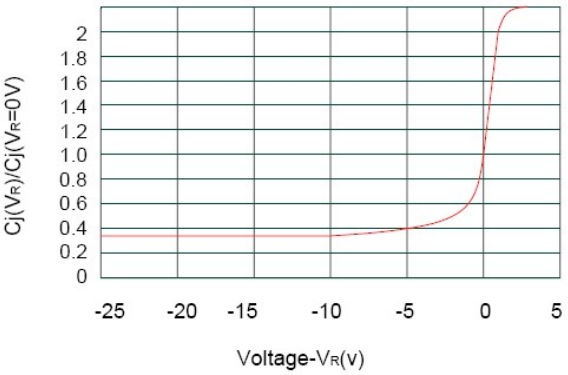
Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time

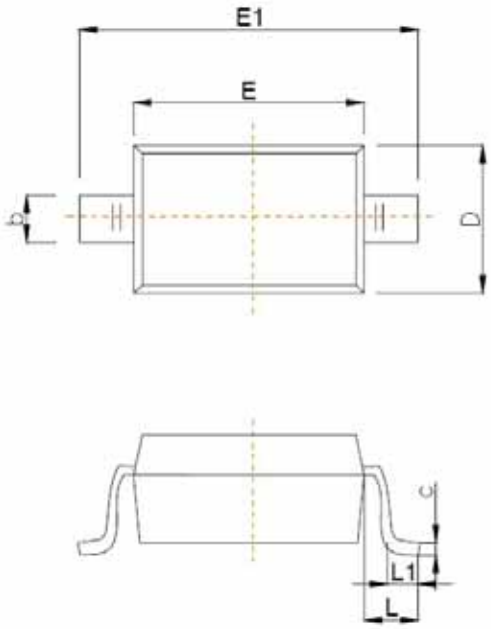


Power Derating Curve

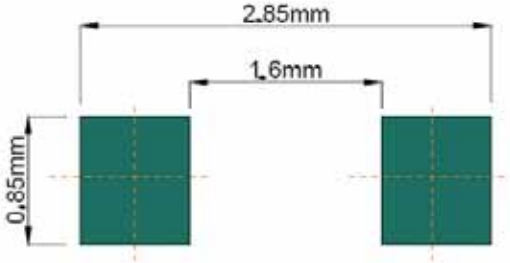


Junction Capacitance vs. Reverse Voltage

SOD-323



Symbol	Dimensions In Millimeters	
	Min	Max
A		1.00
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
e	1.800	2.040
L	0.475 REF	
L1	0.250	0.400
θ	0°	8°



Recommended Pad outline

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-323	-T	3,000	15,000	---	---	178	390*205*310	120,000	5.17

DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.