RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

TAB03LC THRU TAB24LC

Bidirectional Ultra Low Capacitance TVS Array

DESCRIPTION

The TABXXLC 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 both unidirectional and bidirectional configurations and is rated at 350 Watts for an 8/20μs waveshape.

The TABXXLC 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 a 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) 12A (8/20μs)
✧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

MACHANICAL DATA

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

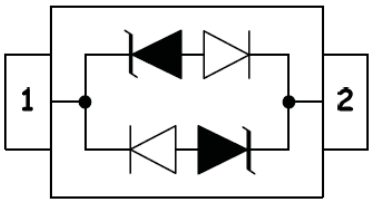
ORDERING INFORMATION

✧Device: TABXXLC
✧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



2015-11
REV:O1

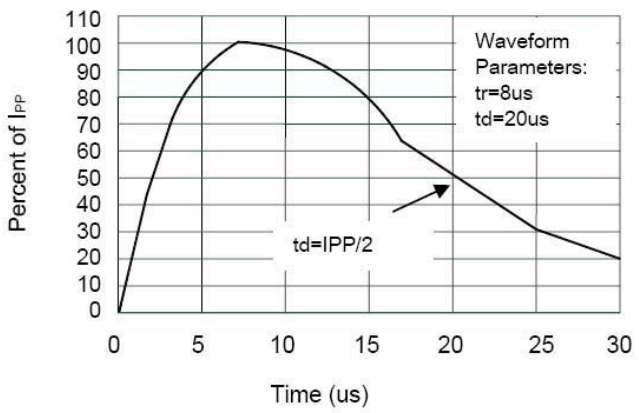
ABSOLUTE MAXIMUM RATING

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

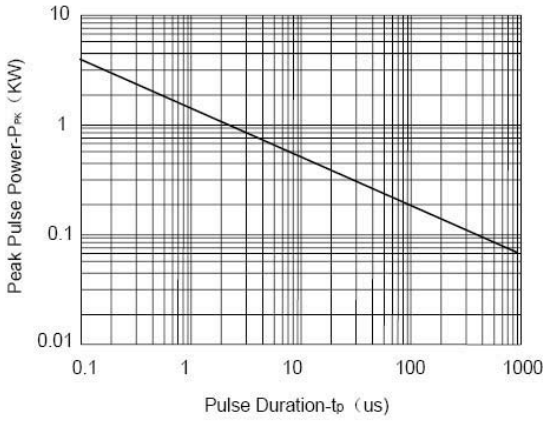
ELECTRICAL CHARACTERISTICS (Tamb=25°C)

PART NUMBER	DEVICE MARKING	V_{RWM} (V) (max.)	V_B (V) (min.)	I_T (mA)	V_C@1A (V) (max.)	V_C (V) (max.)	(@A)	I_R (μA) (max.)	C_T (pF) (typ.)
TAB03LC	CC	3.0	4.0	1	7.0	13.9	8	20	0.8
TAB05LC	AC	5.0	6.0	1	9.8	18.3	8	5	0.8
TAB08LC	BC	8.0	8.5	1	13.4	18.5	8	2	0.8
TAB12LC	DC	12.0	13.3	1	19.0	28.6	6	1	0.8
TAB15LC	EC	15.0	16.7	1	24.0	31.8	5	1	0.8
TAB24LC	HC	24.0	26.7	1	43.0	56.0	3	1	0.8

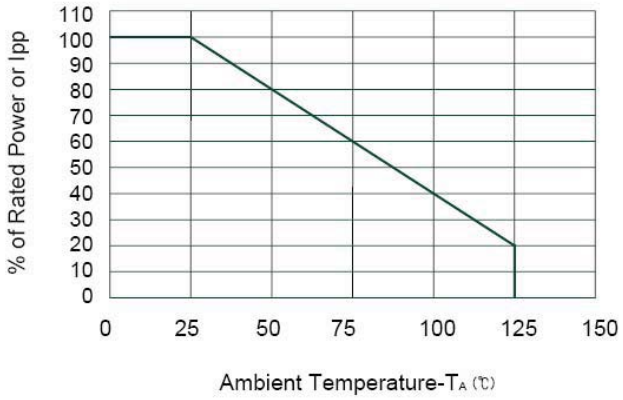
RATING AND CHARACTERISTICS CURVES (TAB03LC THRU TAB24LC)



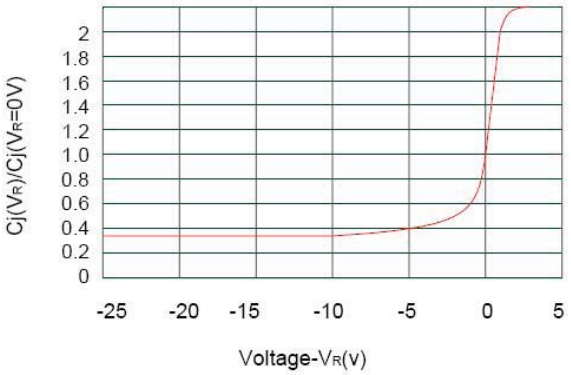
Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time



Power Derating Curve



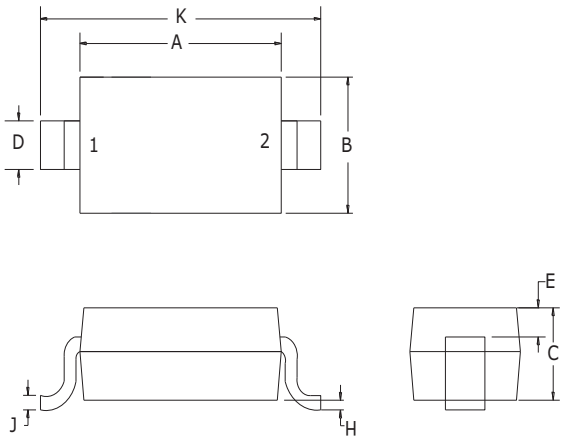
Junction Capacitance vs. Reverse Voltage

SOD-323

Mechanical Data

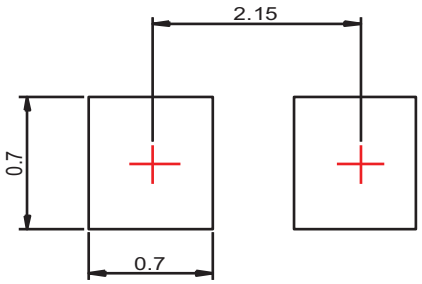
Case: SOD-323

Case Material: Molded Plastic. UL Flammability

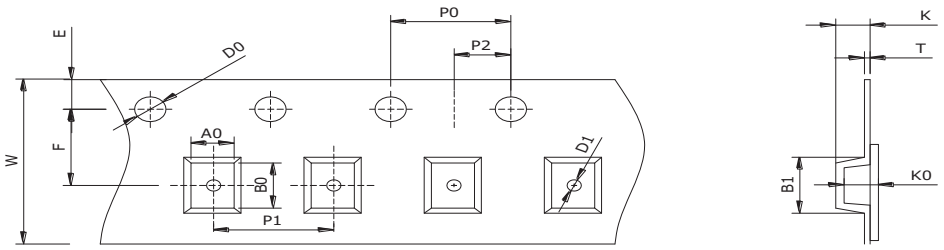


Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	1.60	1.80	0.063	0.071
B	1.2	1.40	0.047	0.055
C	0.80	0.90	0.031	0.035
D	0.25	0.35	0.010	0.014
E	0.15REF		0.006REF	
H	0	0.10	0	0.004
J	0.08	0.15	0.003	0.006
K	2.50	2.70	0.098	0.106

Recommended Pad outline



SOD-323 Reel Dim

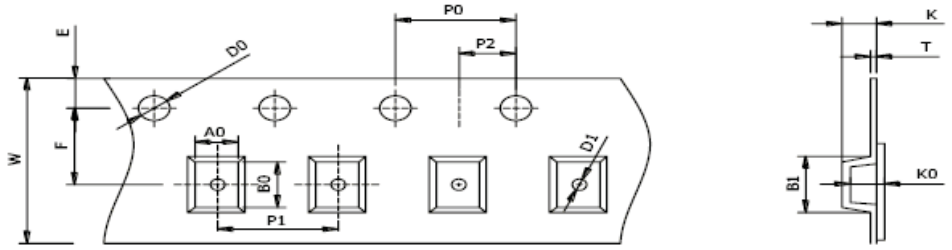


Package	Diode Size	Pocket Size B0×A0×K0(mm)	Tape Width	Reel Diameter	Quantity Per Reel	P0	P1
SOD-323	2.60×1.40×1.05	30×1.50×1.25	8mm	178mm(7")	3000	4mm	4mm
D0	D1	E	F	K	T	W	
1.5mm	1.05mm	1.75mm	3.5mm	0.95mm	0.2mm	8mm	

Packing

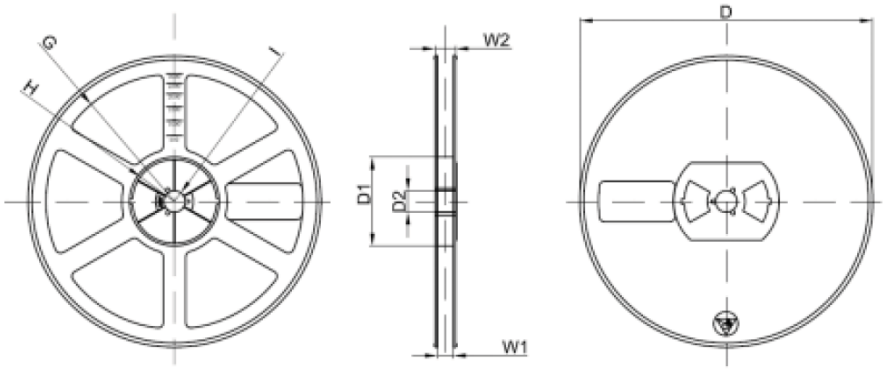
Reel	Reel Size	Box (Box Size)	Carton(Carton Size)
3000pcs	7inch	45,000pcs(203*203*195)	180,000pcs(438*438*220)

Carrier Tape



Package	Diode Size	Pocket Size B0×A0×K0(mm)	Tape Width	Reel Diameter	Quantity Per Reel	P0	P1
SOD-323	2.60×1.40×1.05	3.30×1.50×1.25	8mm	178mm(7")	3000	4mm	4mm
D0	D1	E	F	K	T	W	
1.5mm	1.05mm	1.75mm	3.5mm	0.95mm	0.2mm	8mm	

Reel



Unit: mm

Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30
Tolerance	±2	±1	±1	±1	±1	±1	±1	±1

Packing Quantity

Reel		Inner Box		Carton	
Size	Quantity Per Reel	Size	Quantity Per Reel	Size	Quantity Per Reel
7 (inch)	3,000pcs	210*208*203 (mm)	45,000pcs	440*440*230 (mm)	180,000pcs

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