Specification for release

Customer :

Ordercode: **824013**

Description: **TVS Diode Array WE-TVS**

Package: **SOT23-6L**

compliant RoHS WÜRTH ELEKTRONIK

WÜRTH ELEKTRONIK

DATUM / DATE : 2012-02-22

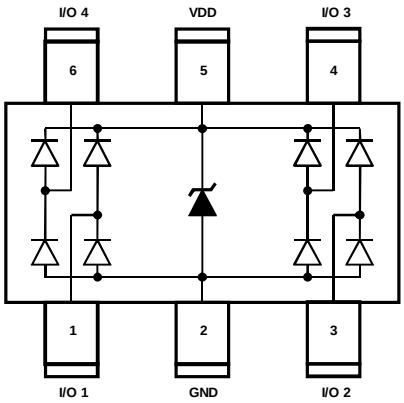
A Features:

- ESD Protection for 4 high-speed I/O channels and VDD
- Provide ESD protection for each channel to
  IEC 61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
  IEC 61000-4-4 (EFT) 80A (5/50ns)
  IEC 61000-4-5 (Lightning) 12A (8/20µs)
- Up to 3.3V operating voltage
- Low capacitance: 3pF typical

Mechanical Characteristics:

- JEDEC SOT23-6L Package
- Molding compound flamability rating: UL94V-0
- Packaging: Tape & Reel

B Schematic and Pin Configuration:



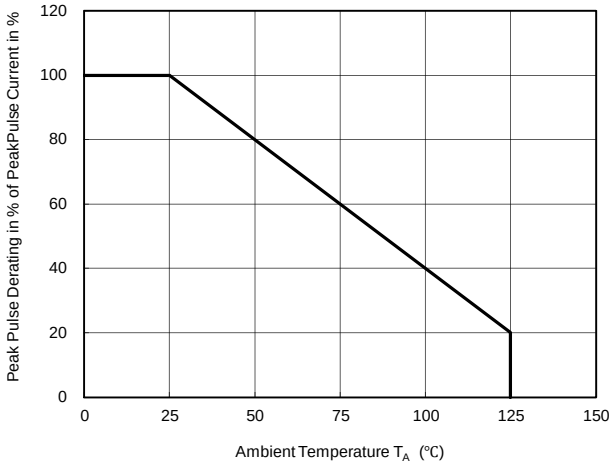
C Absolute Maximum Ratings:

	Symbol	Rating	Unit
Peak Pulse Current (tp = 8/20µs)	I_{PP}	12	A
Operating Supply Voltage, VDD to GND	V_{DC}	3.8	V
ESD per IEC 61000-4-2 (Air / Contact), I/O to GND	$V_{ESD,IO}$	30 / 24	kV
ESD per IEC 61000-4-2 (Air / Contact), VDD to GND	$V_{ESD,VDD}$	30 / 24	kV
DC Voltage at any I/O Pin	V_{IO}	(GND -0,5) to (VDD +0,5)	V
Operating Temperature	T_{Op}	-55 to +125	℃
Storage Temperature	T_{Sto}	-20 to +60	℃

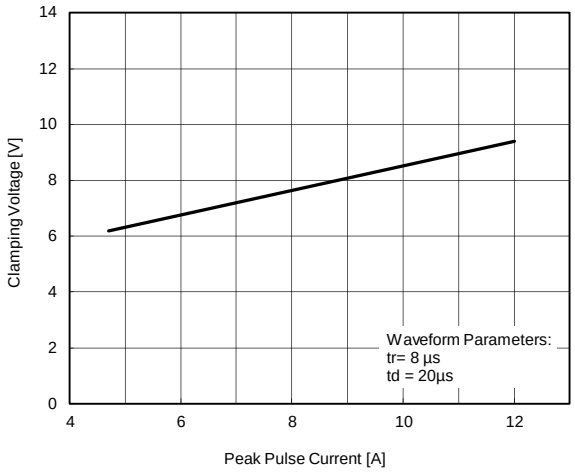
D Electrical Characterisitcs:

Properties	Test Conditions	Value min	Value typ	Value max	Unit
V_{RWM}	Pin 5 to Pin 2			3.3	V
V_{BV}	I_{BV}=1mA, Pin 5 to Pin 2	4.5			V
I_R	V_{Pin5}=5V, Pin 5 to Pin 2			5	µA
V_F	I_F = 15mA, Pin 2 to Pin 5	0.6		1	V
v_C	I_{PP}=5A, tp=8/20µs, I/O to GND		6.0		V
$v_{CI,IO}$	I_{TLP} = 17A, I/O to GND		9.0		V
C_{IO}	V_{Pin5}=4V, V_{Pin2}=0V, V_{IO}=2.5V, f=1MHz, I/O to GND		3.0	3.5	pF
C_X	V_{Pin5}=5V, V_{Pin2}=0V, V_{IO}=2.5V f=1MHz, between I/O pins		0.4	0.6	pF

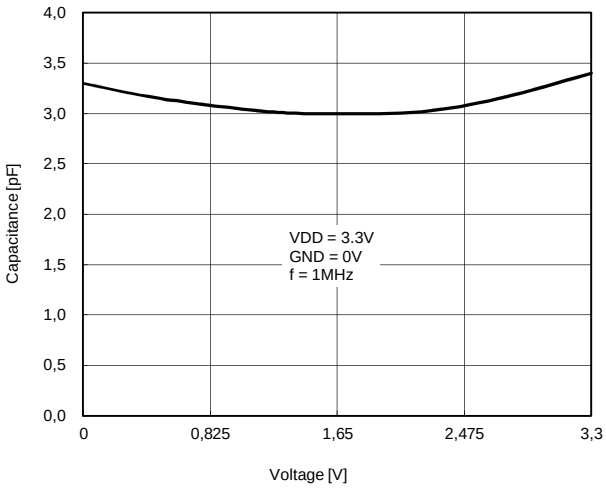
E Typical Characteristics:



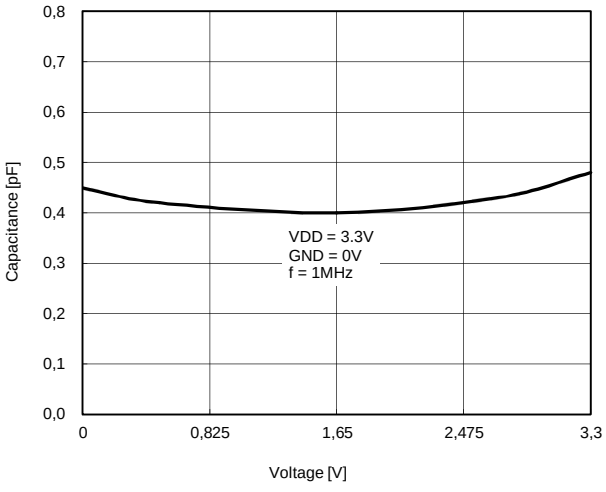
Power Derating Curve



Clamping Voltage vs. Peak Pulse Current

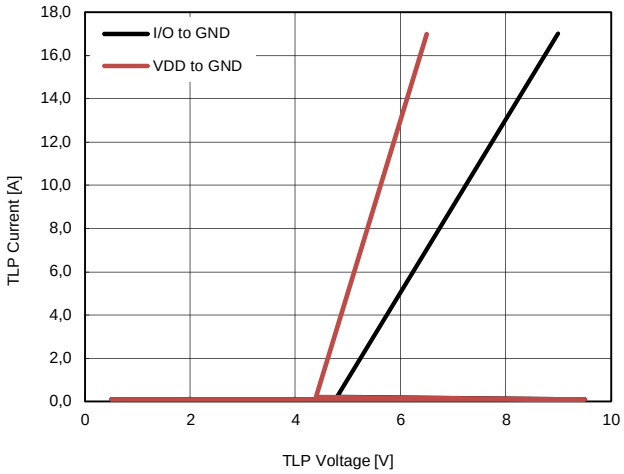


Variation of C_{IO} vs. V_{IO}

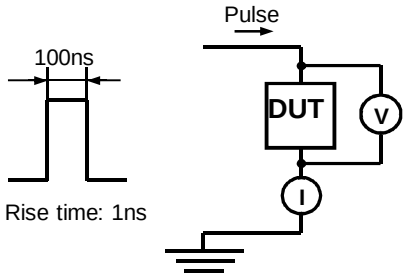


Variation of C_X vs. V_{IO}

E Typical Characteristic:

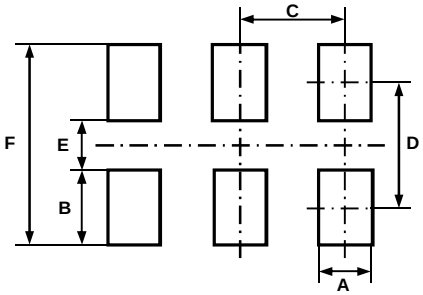


Transmission Line Pulsing (TLP) Measurement



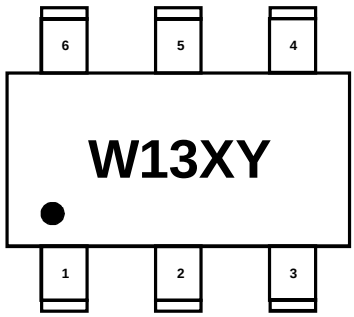
Transmission Line Pulsing System

F Recommended Land Layout:



A	0.60	mm
B	1.10	mm
C	0.95	mm
D	2.50	mm
E	1.40	mm
F	3.60	mm

G Body Marking:



W13: Device Code

X: Date Code

Y: Control Code

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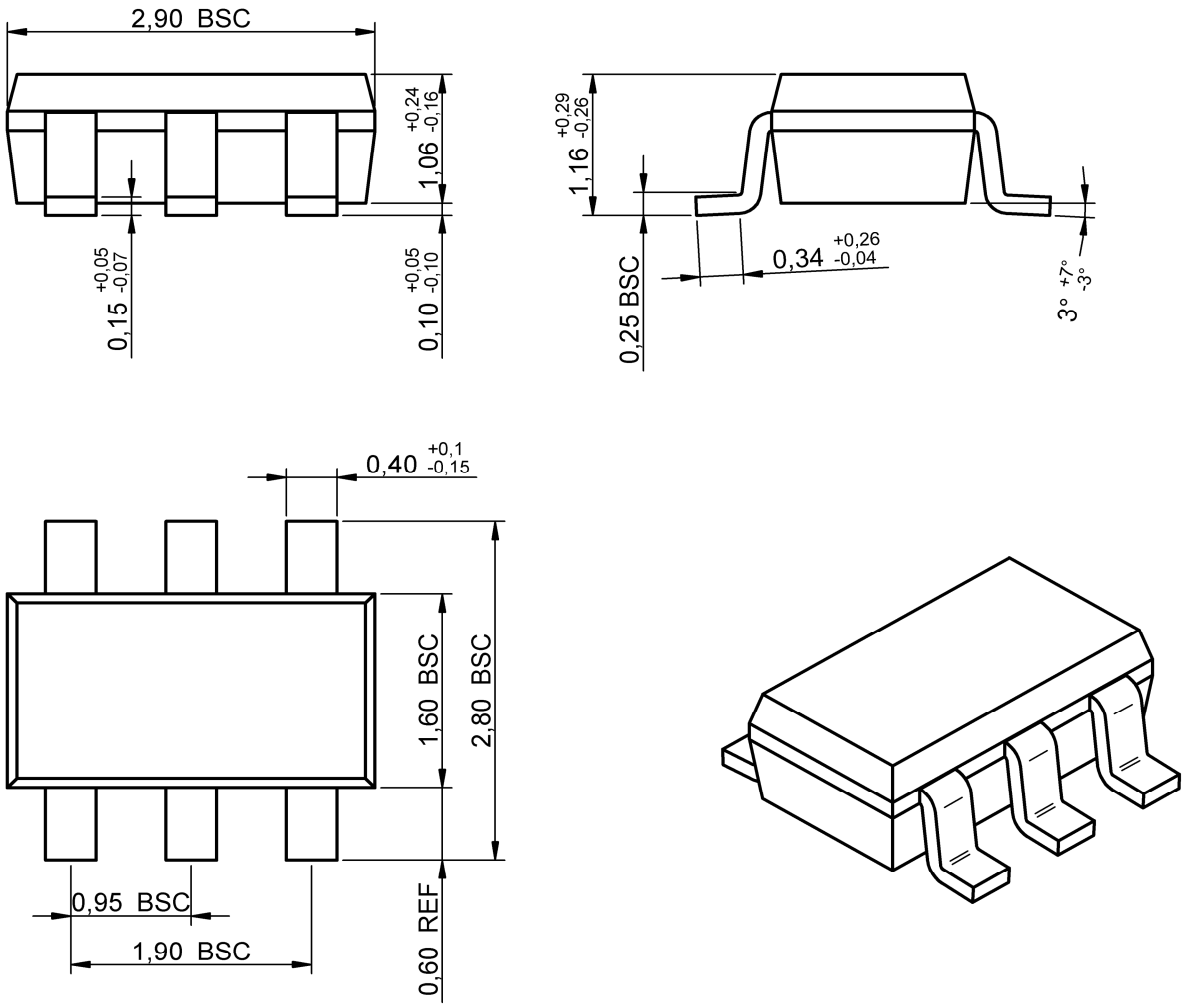
DATUM / DATE : 2012-02-22

H Dimensions:



Scale - 10:1

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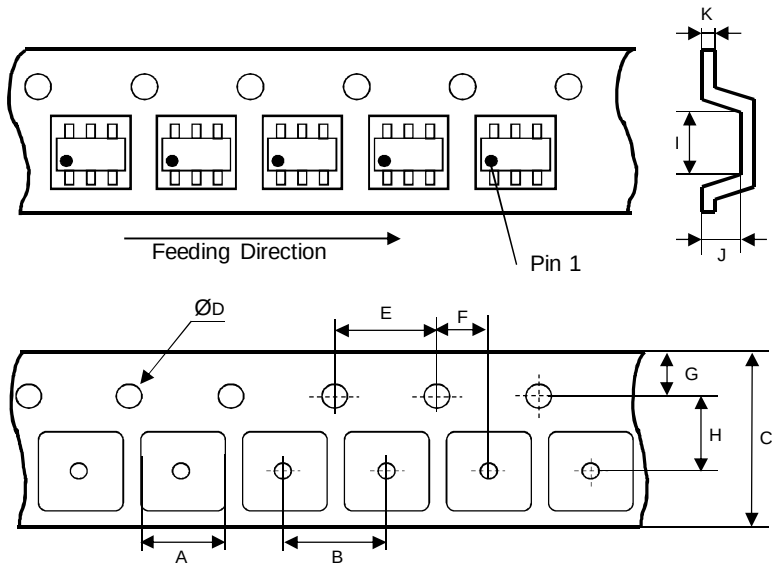
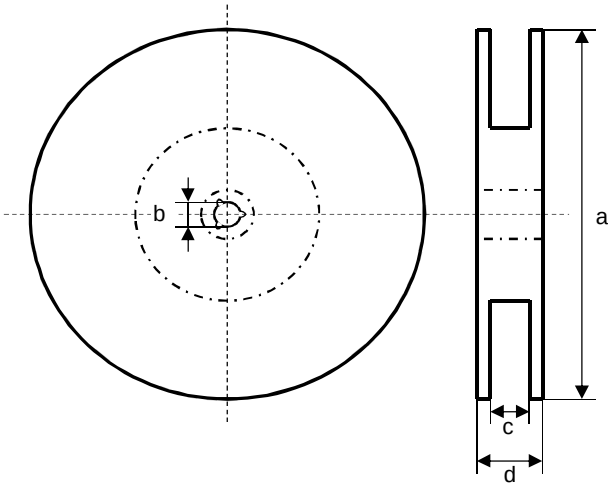
I Tape:

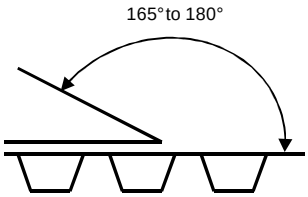


A	**3.15 ± 0.15**	mm
B	**4.00 ± 0.10**	mm
C	**8.00 ± 0.20**	mm
D	**1.55 ± 0.05**	mm
E	**4.00 ± 0.10**	mm
F	**2.00 ± 0.05**	mm
G	**1.75 ± 0.10**	mm
H	**3.50 ± 0.05**	mm
I	**3.25 ± 0.15**	mm
J	**1.35 ± 0.15**	mm
K	**0.25 ± 0.02**	mm

J Reel:



a	**178.0 ± 2.0**	mm
b	**13.0 ± 0.8**	mm
c	**10.0 ± 1.5**	mm
d	**12.5 ± 2.0**	mm



Quantity per Reel:	3000

General Release:

Customer		
Date	Signature	
Würth Elektronik		
Checked	Approved	

JB	Version 2	2012-02-22
JB	Version 1	2010-01-27
Name	**Modification**	Date

Würth Elektronik eiSos GmbH & Co. KG

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