

Excellent Integrated System Limited

Stocking Distributor

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[Wurth Electronics Inc](#)
[824022](#)

For any questions, you can email us directly:

sales@integrated-circuit.com

Specification for release

Customer :
Ordercode: **824022**
Description: **TVS Diode Array WE-TVS**
Package: **SOT23-3L**



DATUM / DATE : 2010-01-27

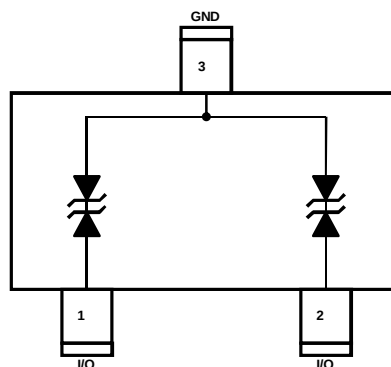
A Features:

- ESD Protection for 2 Lines - bidirectional
- Provide ESD Protection for each line to IEC 61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
IEC 61000-4-4 (EFT) 40A (5/50ns)
IEC 61000-4-5 (Lightning) 8A (8/20 μs)
- Below 5V operating voltage: 2.5 - 3.3 - 4.2 - 5.0V
- Protect two I/O or Power Lines

Mechanical Characteristics:

- JEDEC SOT23-3L Package
- Molding compound flammability rating: UL94V-0
- Packaging: Tape & Reel

B Schematic and Pin Configuration:



C Absolute Maximum Ratings:

	Symbol	Rating	Unit
Peak Pulse Current (tp = 8/20 μs)	I_{PP}	8	A
ESD per IEC 61000-4-2 (Air / Contact), I/O to GND	V_{ESD}	20 / 12	kV
Operating Temperature	T_{Op}	-55 to +125	°C
Storage Temperature	T_{Sto}	-20 to +60	°C

D Electrical Characteristics:

Properties	Test Conditions	Value min	Value typ	Value max	Unit
V_{RWM}	I/O to GND			5	V
V_{BV}	$I_{BV}=1\text{mA}$, I/O to GND	6.1			V
I_R	$V_{RWM}=5\text{V}$, I/O to GND			2.5	μA
V_C	$I_{PP}=5\text{A}$, tp=8/20 μs , I/O to GND		7	8	V
V_{CLIO}	$I_{TLP} = 17\text{A}$, I/O to GND		9		V
V_{CLVDD}	$I_{TLP} = 17\text{A}$, I/O to I/O		11		V
C_{IO}	$V_{IO}=0\text{V}$, f=1MHz, I/O to GND		12	15	pF

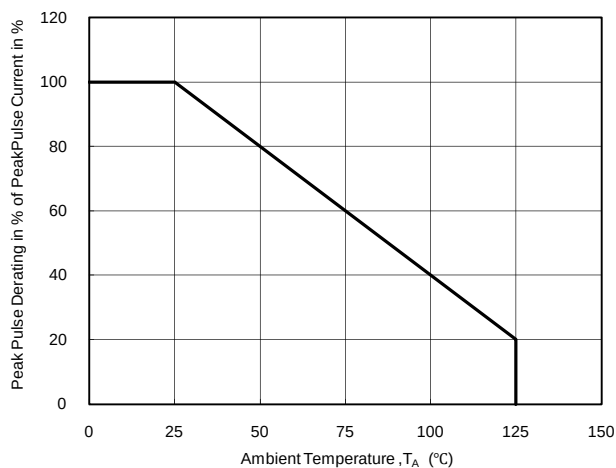
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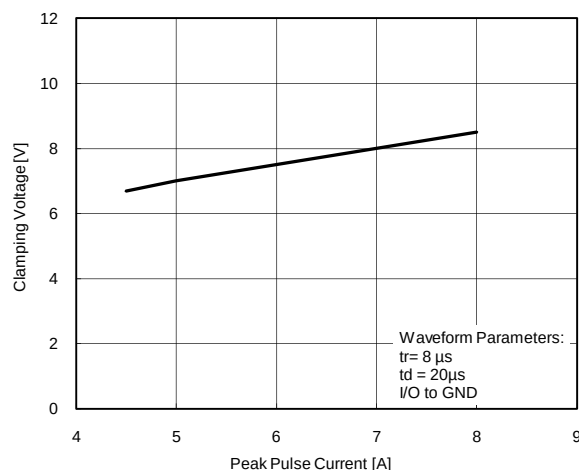


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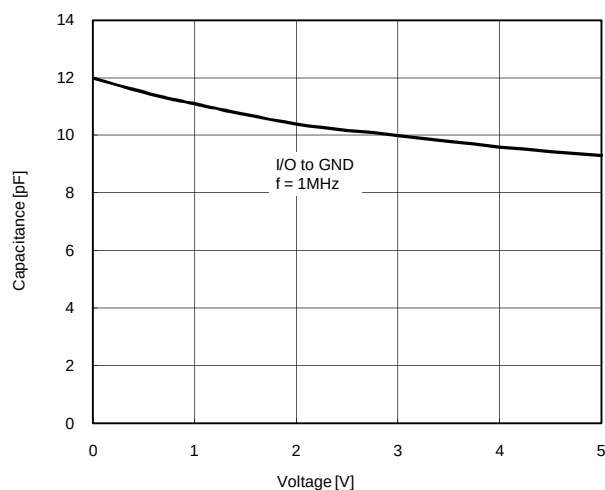
E Typical Characteristics:



Power Derating Curve



Clamping Voltage vs. Peak Pulse Current



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

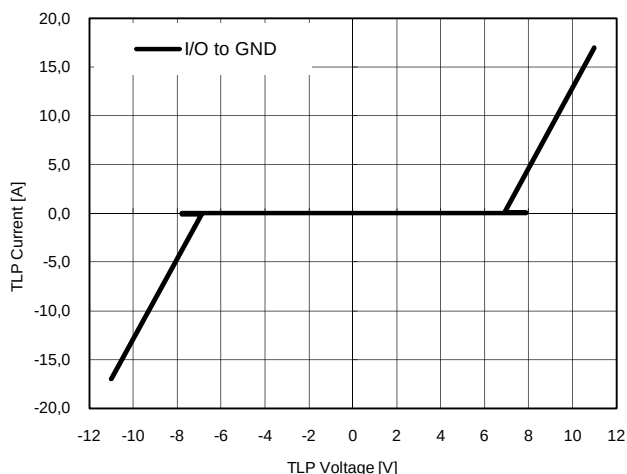
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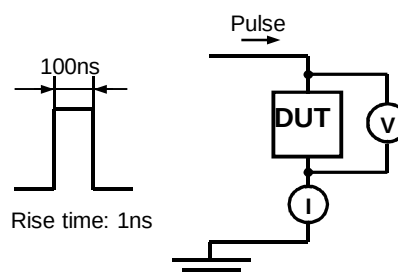


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E Typical Characteristic:

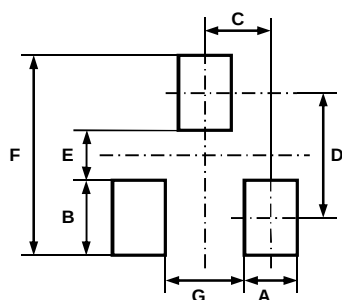


Transmission Line Pulsing (TLP) Measurement



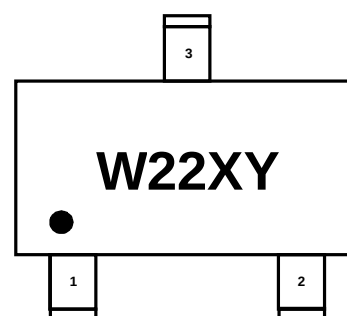
Transmission Line Pulsing System

F Recommended Land Layout:



A	0.9	mm
B	1.4	mm
C	0.95	mm
D	2.1	mm
E	0.7	mm
F	3.5	mm
G	1.0	mm

G Body Marking:



W22: Device Code

X: Date Code

Y: Control Code

Specification for release

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Ordercode:

824022

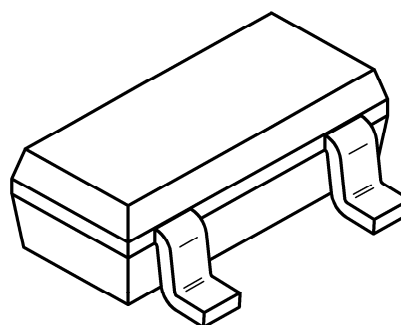
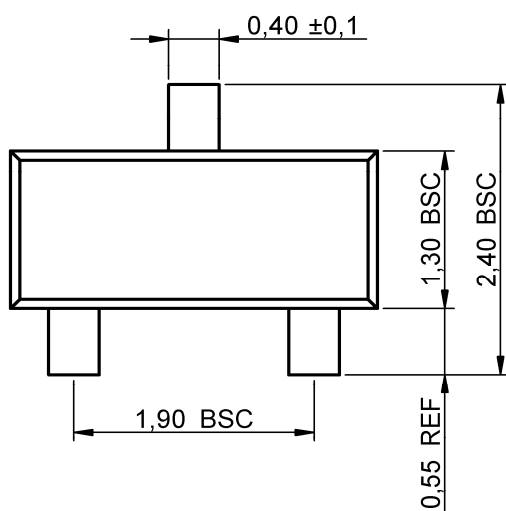
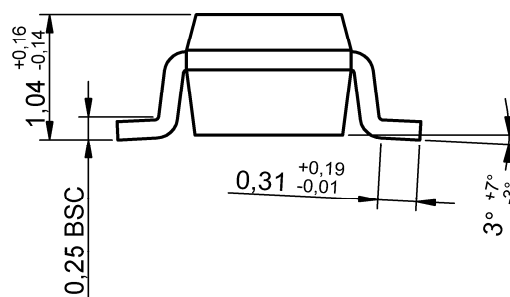
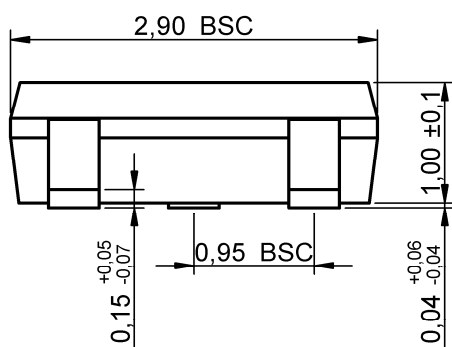
Description :

TVS Diode Array WE-TVS



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H Dimensions:



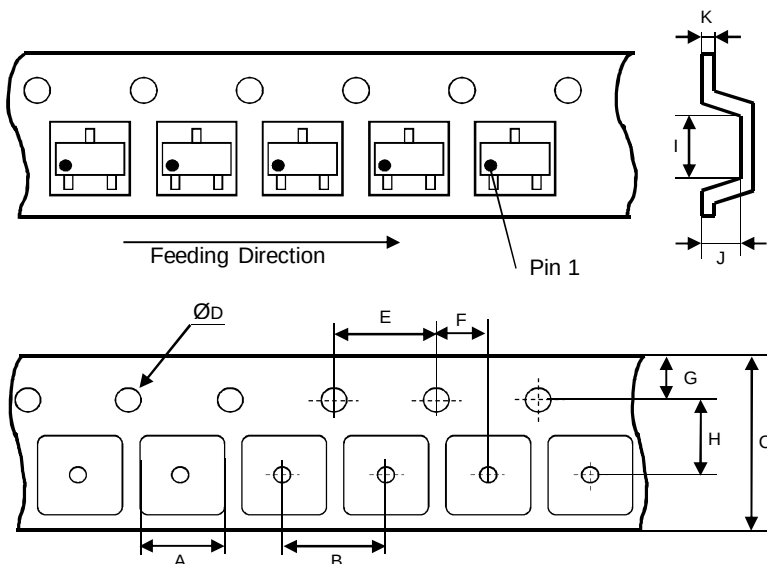
Scale - 10:1

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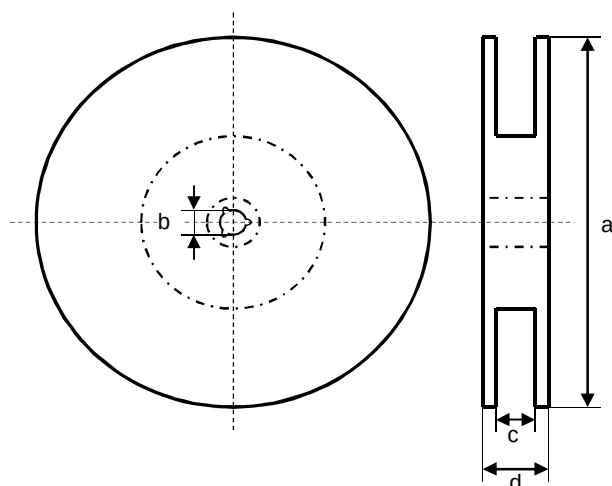


I Tape:

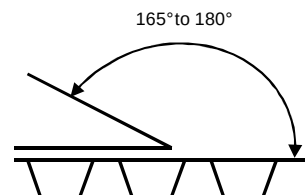


A	4.00 ± 0.10	mm
B	4.00 ± 0.10	mm
C	8.00 ± 0.20	mm
D	1.55 ± 0.05	mm
E	4.00 ± 0.10	mm
F	2.00 ± 0.05	mm
G	1.75 ± 0.10	mm
H	3.50 ± 0.05	mm
I	3.25 ± 0.15	mm
J	1.35 ± 0.15	mm
K	0.25 ± 0.02	mm

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		JB	new technical drawing	2010-01-27
			JB	Changed Name VDD to GND	2009-02-03
			JB	Version 1	2008-10-13
Checked	Approved		Name	Modification	Date

This electronic component has been designed and developed for usage in general electronic equipment. Before incorporating this component into any equipment where higher safety and reliability is especially required or if there is the possibility of direct damage or injury to human body, for example in the range of aerospace, aviation, nuclear control, submarine, transportation, (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network etc, Würth Elektronik eiSos GmbH must be informed before the design-in stage. In addition, sufficient reliability evaluation checks for safety must be performed on every electronic component which is used in electrical circuits that require high safety and reliability functions or performance.

Würth Elektronik eiSos GmbH & Co. KG