

Specification for release

Customer : _____
 Ordercode: **8240116**
 Description: **TVS Diode Array WE-TVS**
 Package: **SOT143-4L**



DATUM / DATE : 2010-01-27

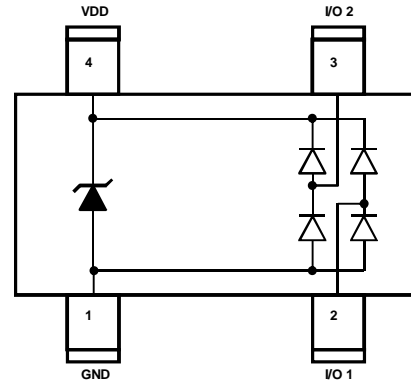
A Features:

- ESD Protection for 2 high-speed I/O channels and VDD
- Provide ESD protection for each channel 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) 12A (8/20 μs)
- Below 5V operating voltage: 2.5 - 3.3 - 4.2 - 5.0V
- Low capacitance: 2pF typical

Mechanical Characteristics:

- JEDEC SOT143-4L 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 = 8/20 μs)	I_{PP}	12.0	A
Operating Supply Voltage, VDD to GND	V_{DC}	6	V
ESD per IEC 61000-4-2 (Air / Contact), I/O to GND	$V_{ESD,I/O}$	20 / 12	kV
ESD per IEC 61000-4-2 (Air / Contact), VDD to GND	$V_{ESD,VDD}$	20 / 12	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	$^{\circ}\text{C}$
Storage Temperature	T_{Sto}	-20 to +60	$^{\circ}\text{C}$

D Electrical Characteristics:

Properties	Test Conditions	Value min	Value typ	Value max	Unit
V_{RWM}	Pin 4 to Pin 1			5	V
V_{BV}	$I_{BV}=1\text{mA}$, Pin 4 to Pin 1	6.1			V
I_R	$V_{Pin5}=5\text{V}$, Pin 4 to Pin 1			5	μA
V_F	$I_F = 15\text{mA}$, Pin 1 to Pin 4		0.7	1	V
V_C	$I_{PP}=5\text{A}$, tp=8/20 μs , I/O to GND		7.8	9.0	V
$V_{Cl,I/O}$	$I_{TLP} = 17\text{A}$, I/O to GND		13		V
C_{IO}	$V_{Pin4}=5\text{V}$, $V_{Pin1}=0\text{V}$, $V_{IO}=2.5\text{V}$, f=1MHz, I/O to GND		2	3	pF
C_X	$V_{Pin4}=5\text{V}$, $V_{Pin1}=0\text{V}$, $V_{IO}=2.5\text{V}$ f=1MHz, between I/O pins		0.1	0.2	pF

Würth Elektronik eiSos GmbH & Co. KG

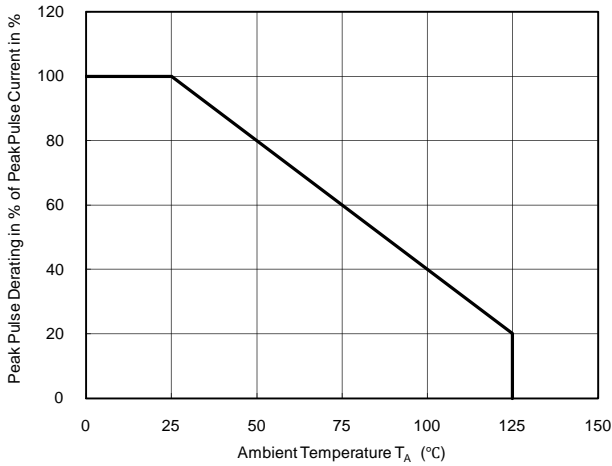
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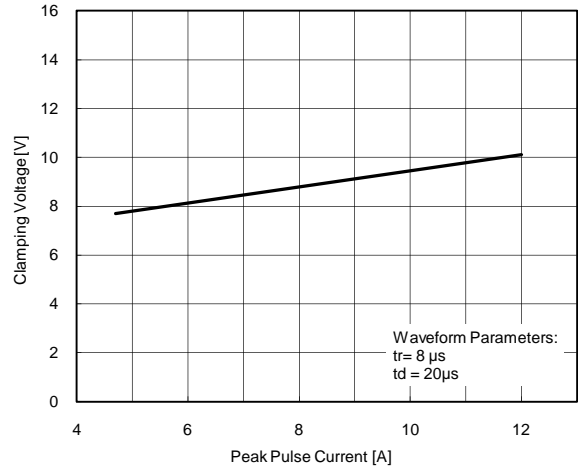


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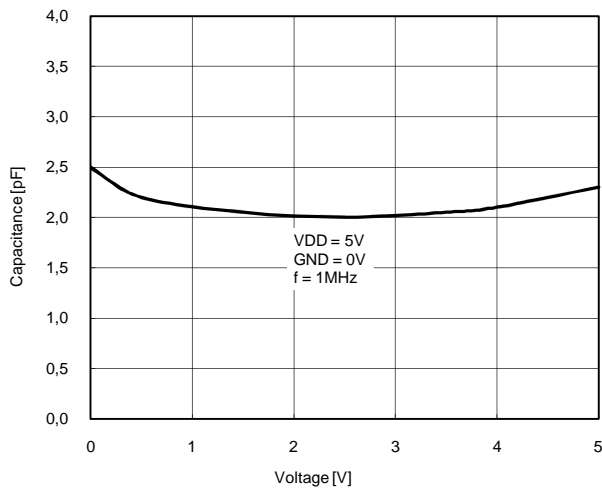
E Typical Characteristics:



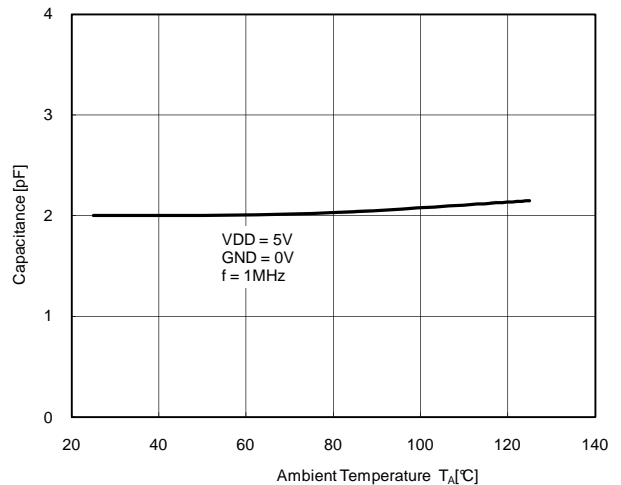
Power Derating Curve



Clamping Voltage vs. Peak Pulse Current



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



Variation of C_{IO} vs. Temperature

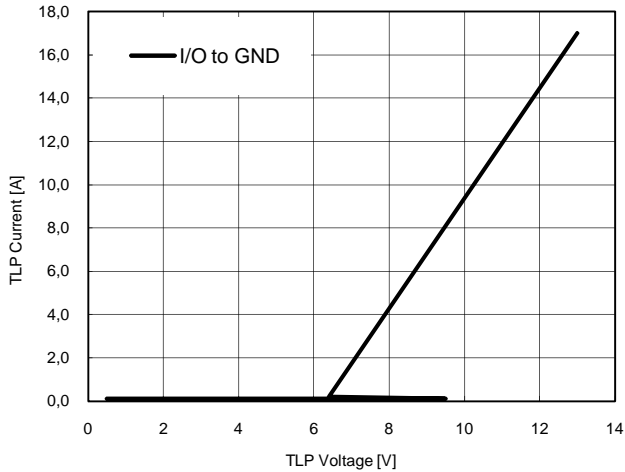
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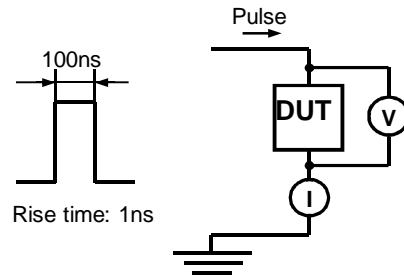


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E Typical Characteristic:

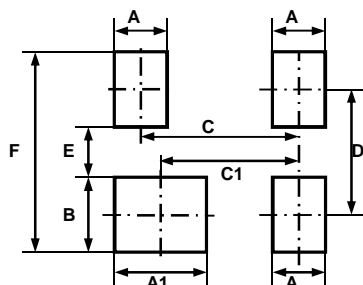


Transmission Line Pulsing (TLP) Measurement



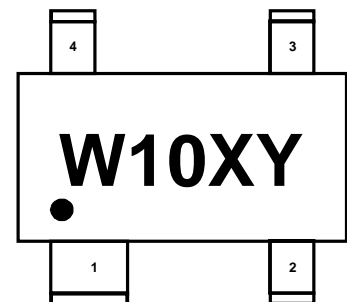
Transmission Line Pulsing System

F Recommended Land Layout:



A	1.00	mm
A1	1.40	mm
B	1.40	mm
C	1.90	mm
C1	1.70	mm
D	2.20	mm
E	0.80	mm
F	3.60	mm

G Body Marking:



W10: Device Code
 X: Date Code
 Y: Control Code

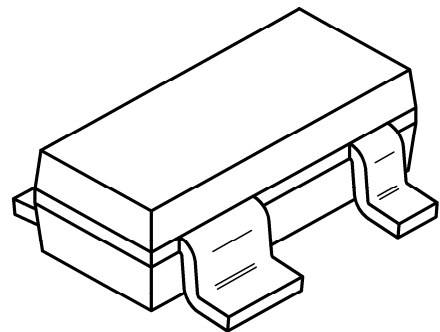
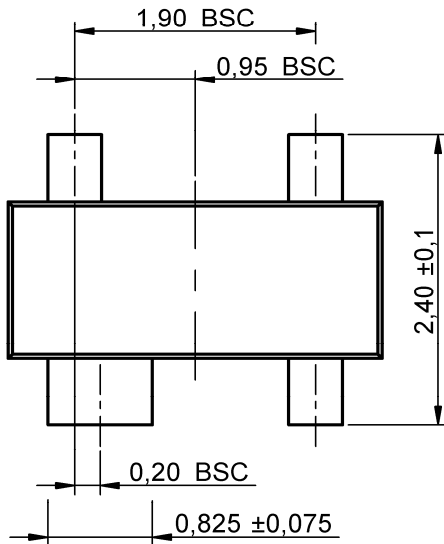
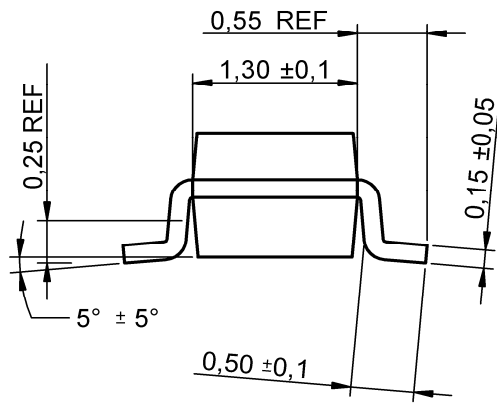
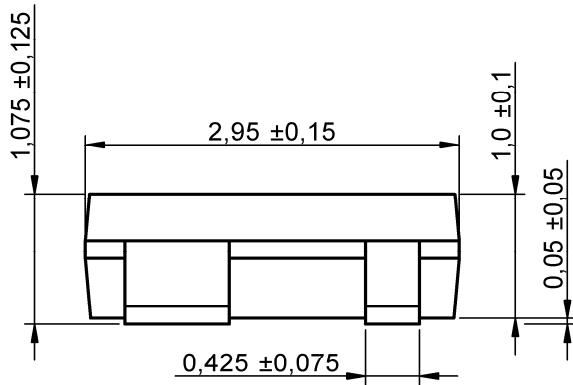
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H Dimensions:



Scale - 10:1

