V_{WM}=5V, 0.6pF ESD Protection Array

FEATURES

- Meet IEC61000-4-2(ESD) ±18kV(air) , ±12kV(contact)
- Working Voltage: 5V
- RoHS Compliant
- Halogen-free according to IEC 61249-2-21

APPLICATIONS

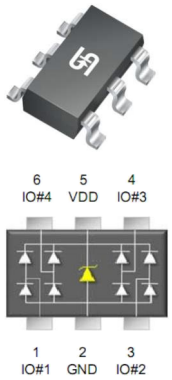
- Digital Visual Interface(DVI)
- 10/100/1000 Ethernet
- Projection TV Monitors and Flat Panel Displays

MECHANICAL DATA

- Case: SOT-26
- Molding compound meets UL 94 V-0 flammability rating
- Moisture sensitivity level: level 1, per J-STD-020
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 1A whisker test
- Polarity: As marked
- Weight: 7.65 mg (approximately)

KEY PARAMETERS		
PARAMETER	**VALUE**	**UNIT**
P_{PPSM}	75	W
I_{PP}	5	A
V_{WM}	5	V
$V_{(BR)}$ at I_R=1 mA	6	V
V_C at I_{PP}= 5 A	15	V
Package	SOT-26	
Configuration	Single die	

Pb-Free RoHS COMPLIANT HALOGEN FREE



ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)			
PARAMETER	**SYMBOL**	**TESD5V0V4UCX6**	**UNIT**
Marking code on the device		F4	
Rated random recurring peak Impulse power dissipation (tp=8/20μs waveform)	P_{PPSM}	75	W
Peak impulse current (tp=8/20μs waveform)	I_{PP}	5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	±18 ±12	kV
Junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)						
PARAMETER	**CONDITIONS**	**SYMBOL**	**MIN**	**TYP**	**MAX**	**UNIT**
Reverse breakdown voltage (1)	I_R = 1 mA	$V_{(BR)}$	6	-	-	V
Rated working standoff voltage		V_{WM}	-	-	5	V
Reverse current (1)	V_R= 5 V	I_R	-	-	0.1	μA
Clamping voltage (2)	I_{PP} = 1 A (any I/O pin to Ground)	V_C	-	-	12	V
Clamping voltage (2)	I_{PP} = 5 A (any I/O pin to Ground)	V_C	-	-	15	V
Junction capacitance	1 MHz, V_R=0V (between I/O pins)	C_J	-	-	0.4	pF
Junction capacitance	1 MHz, V_R=0V (any I/O pin to Ground)	C_J	-	-	0.6	pF

Notes:

1. Pulse test with PW=30 ms
2. tp=8/20μs waveform

ORDERING INFORMATION		
ORDERING CODE	**PACKAGE**	**PACKING**
TESD5V0V4UCX6 RFG	SOT-26	3K / 7" Reel

CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig.1 8/20μs pulse waveform according to IEC 61000-4-5

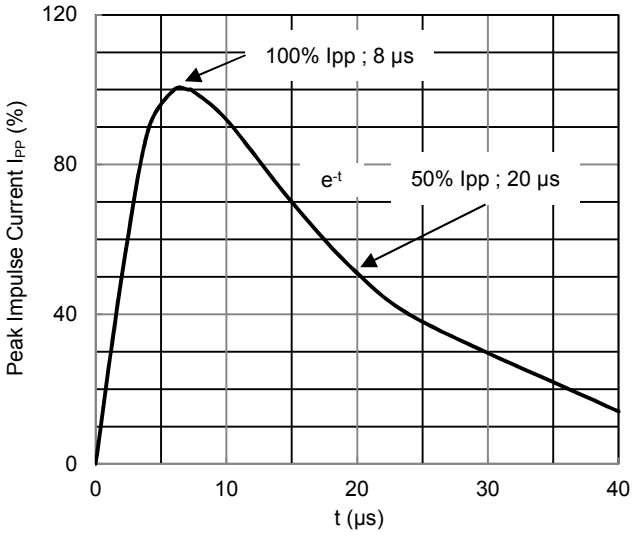


Fig.2 ESD pulse waveform according to IEC 6100-4-2

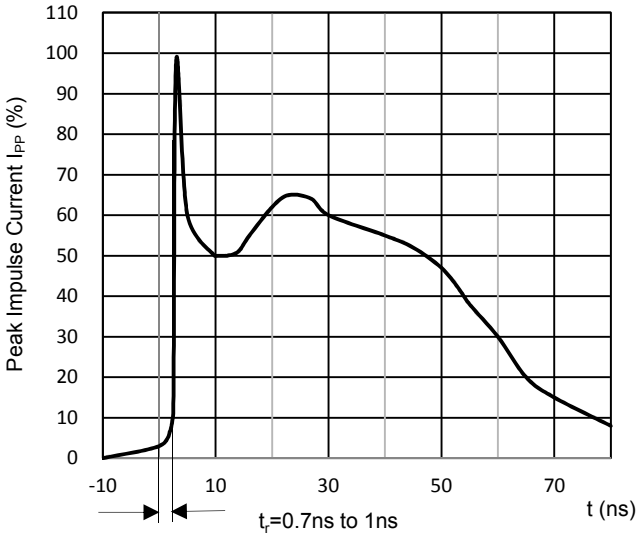


Fig.3 TLP I-V Curve

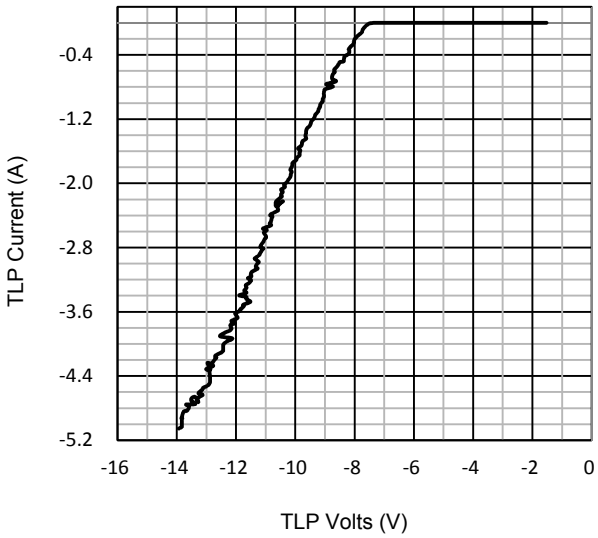
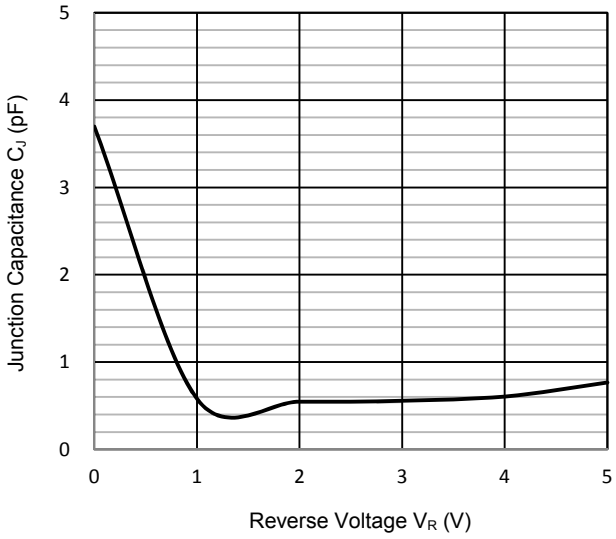


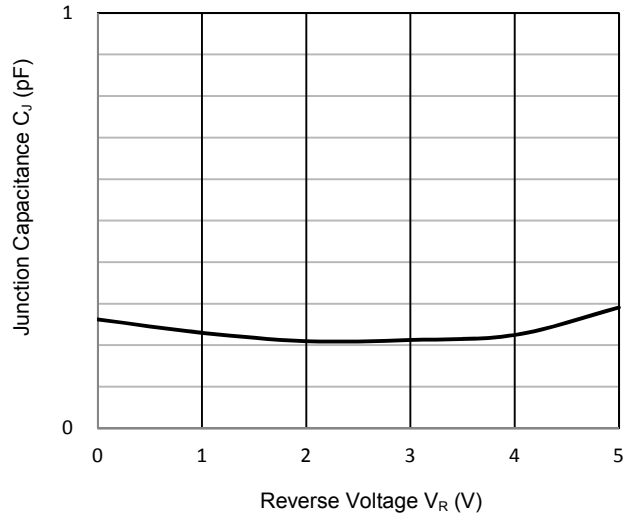
Fig.4 Typical Junction Capacitance (any I/O pin to Ground)



CHARACTERISTICS CURVES

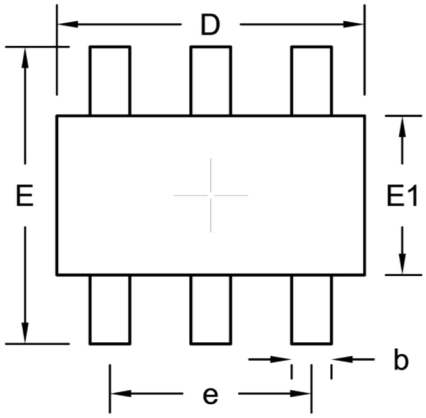
(T_A = 25°C unless otherwise noted)

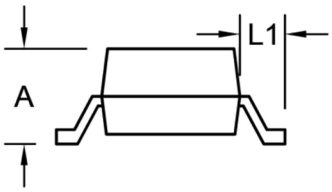
Fig. 5 Typical Junction Capacitance (between I/O pins)



PACKAGE OUTLINE DIMENSION

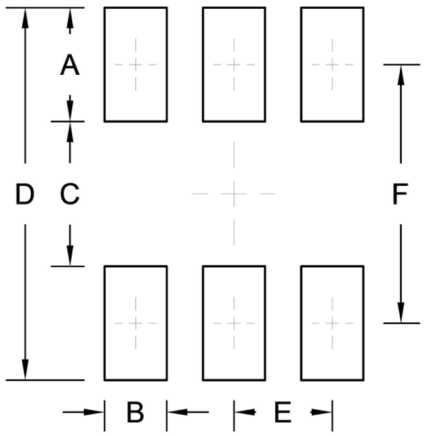
SOT-26





DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
A	0.90	1.45	0.035	0.057
b	0.25	0.50	0.010	0.020
D	2.70	3.10	0.106	0.122
E	2.60	3.00	0.102	0.118
E1	1.30	1.70	0.051	0.067
e	1.70	2.10	0.067	0.083
L1	0.475	0.725	0.019	0.029

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	1.10	0.043
B	0.60	0.024
C	1.40	0.055
D	3.60	0.142
E	0.95	0.037
F	2.50	0.098

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