



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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

FEATURES

- Meet IEC61000-4-2(ESD) ±18kV(air) , ±12kV(contact)
- Working Voltage: 5V
- Compliant to RoHS directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21

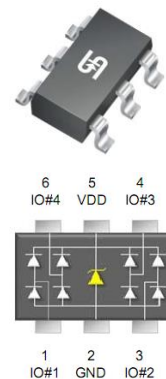
APPLICATIONS

- 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
- Packing code with suffix "G" means green compound (halogen-free)
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 1A whisker test
- Polarity: As marked
- Weight: 7.6537 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 dice	



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

Notes:

1. Pulse test with $PW=30 \text{ ms}$
2. $t_p=8/20\mu\text{s}$ waveform

ORDERING INFORMATION				
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
TESD5V0V4UCX6 (Note 1)	RF	G	SOT-26	3K / 7" Reel

Notes:

1. Whole series with green compound

EXAMPLE				
EXAMPLE P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TESD5V0V4UCX6 RFG	TESD5V0V4UCX6	RF	G	Green compound

CHARACTERISTICS CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

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

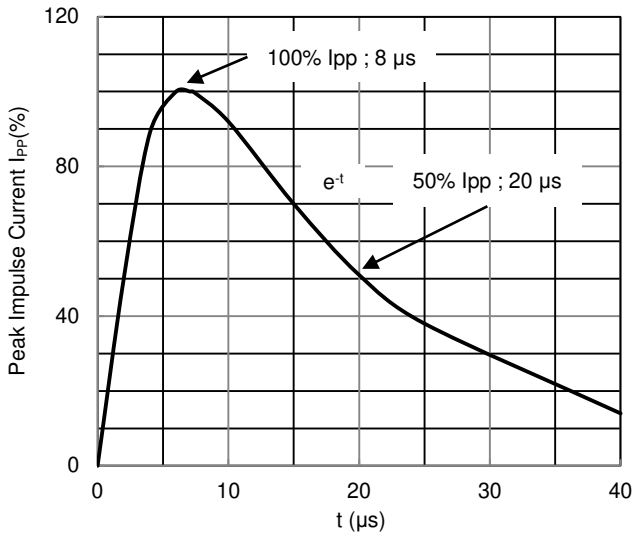


Fig.2 ESD pulse waveform according to IEC 6100-4-2

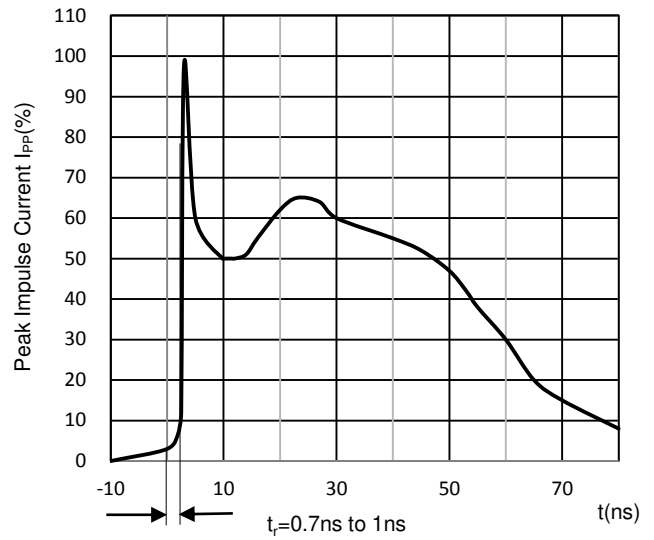


Fig.3 TLP I-V Curve

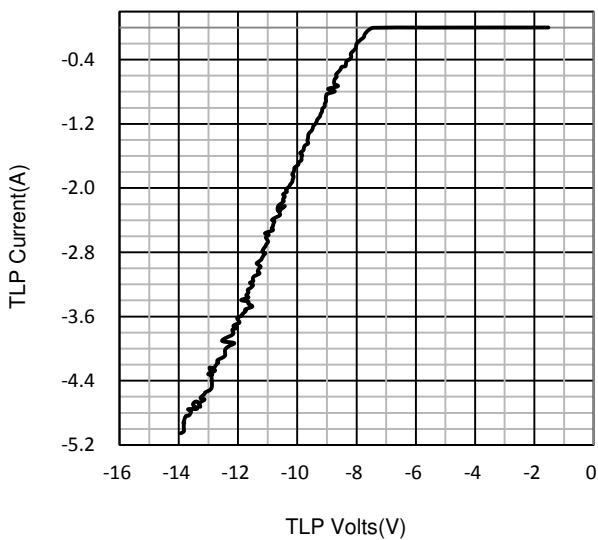
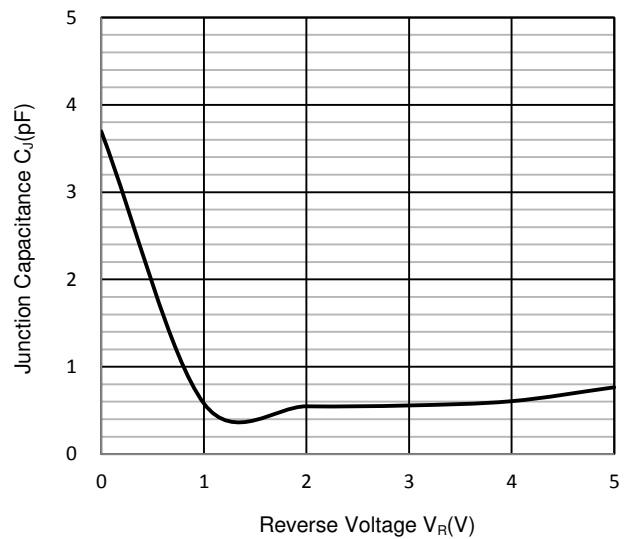


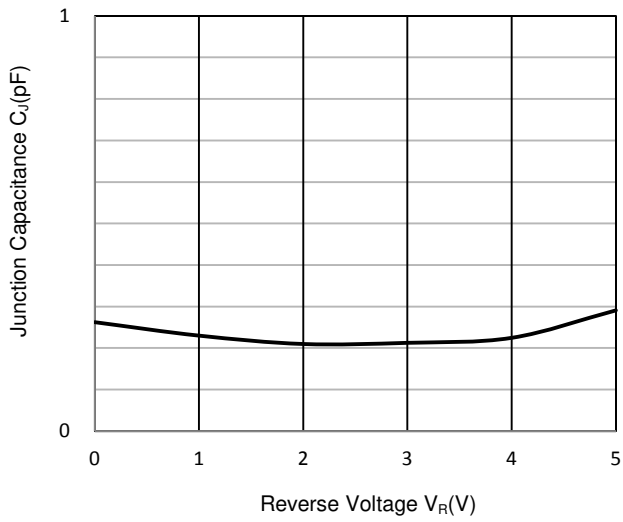
Fig.4 Typical Junction Capacitance (any I/O pin to Ground)



CHARACTERISTICS CURVES

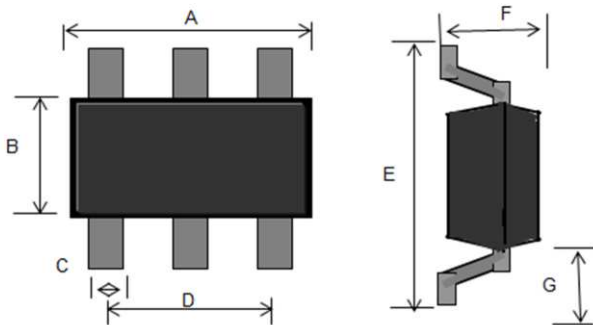
($T_A = 25^\circ\text{C}$ unless otherwise noted)

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



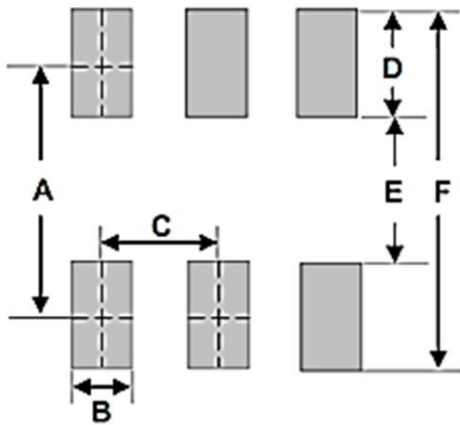
PACKAGE OUTLINE DIMENSION

SOT-26



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.800	3.100	0.110	0.122
B	1.500	1.750	0.059	0.069
C	0.250	0.500	0.010	0.020
D	1.800	2.000	0.071	0.079
E	2.650	2.950	0.104	0.116
F	0.900	1.450	0.035	0.057
G	0.475	0.725	0.019	0.029

SUGGESTED PAD LAYOUT



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

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