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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Ordering number : EN8636A

2SK3796

N-Channel JFET
30V, 0.6 to 6.0mA, 6.5mS, SMCP

ON Semiconductor®
http://onsemi.com

Applications

・ Low-frequency general-purpose amplifier, impedance conversion, analog switches applications

Features

・ Small I_{GSS}
・ Small Ciss

Specifications

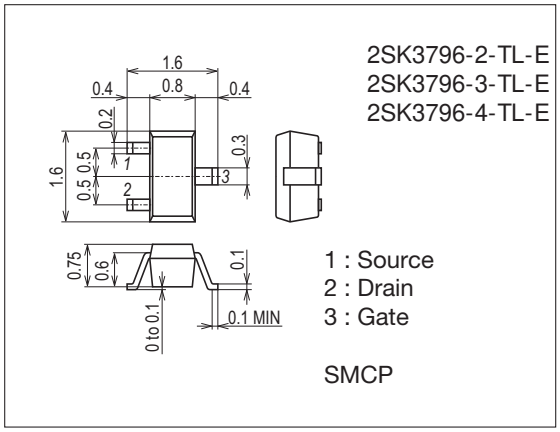
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSX}		30	V
Gate-to-Drain Voltage	V_{GDS}		−30	V
Gate Current	I_G		10	mA
Drain Current	I_D		10	mA
Allowable Power Dissipation	P_D		100	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

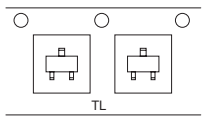
unit : mm (typ)
7013A-011



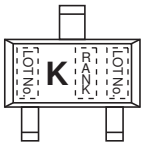
Product & Package Information

- Package : SMCP
- JEITA, JEDEC : SC-75, SOT-416
- Minimum Packing Quantity : 3,000 pcs./reel

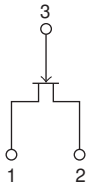
Packing Type: TL



Marking



Electrical Connection



Semiconductor Components Industries, LLC, 2013

Electrical Characteristics at Ta=25°C

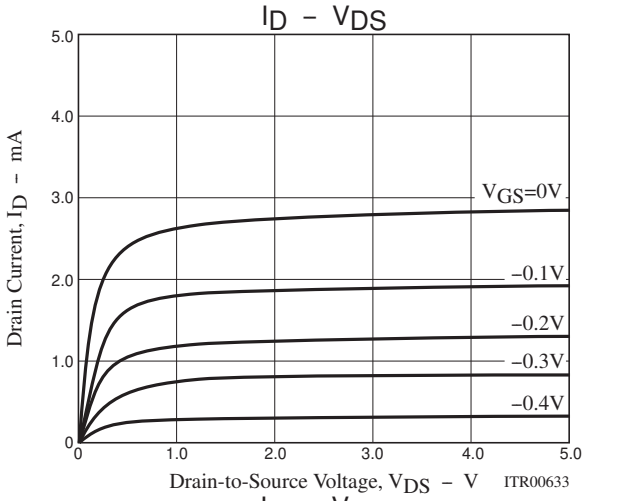
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	I_G=−10μA, V_{DS}=0V	−30			V
Gate Cutoff Current	I_{GSS}	V_{GS}=−20V, V_{DS}=0V			−1.0	nA
Cutoff Voltage	V_{GS}(off)	V_{DS}=10V, I_D=1μA	−0.18	−0.95	−2.2	V
Drain Current	I_{DSS}	V_{DS}=10V, V_{GS}=0V	0.6*		6.0*	mA
Forward Transfer Admittance	| yfs |	V_{DS}=10V, V_{GS}=0V, f=1kHz	3.0	6.5		mS
Input Capacitance	Ciss	V_{DS}=10V, V_{GS}=0V, f=1MHz		4		pF
Reverse Transfer Capacitance	Crss	V_{DS}=10V, V_{GS}=0V, f=1MHz		1.1		pF
Static Drain-to-Source On-State Resistance	R_{DS}(on)	V_{DS}=10mV, V_{GS}=10V		200		Ω

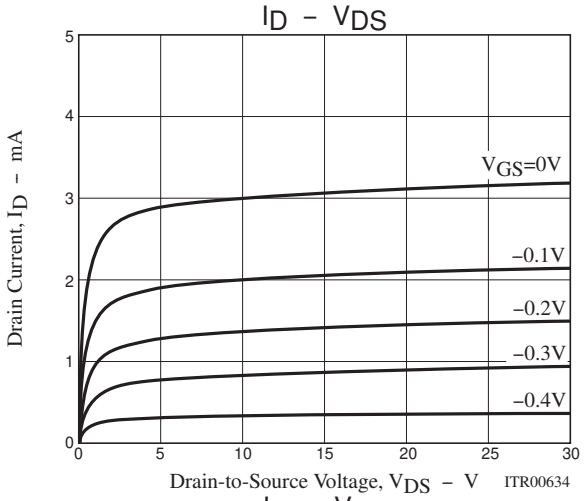
* : The 2SK3796 is classified by I_{DSS} as follows : (unit : mA)

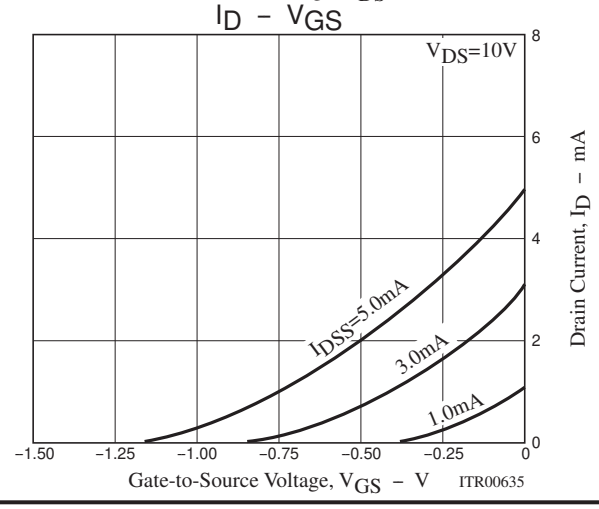
Rank	2	3	4
I_{DSS}	0.6 to 1.5	1.2 to 3.0	2.5 to 6.0

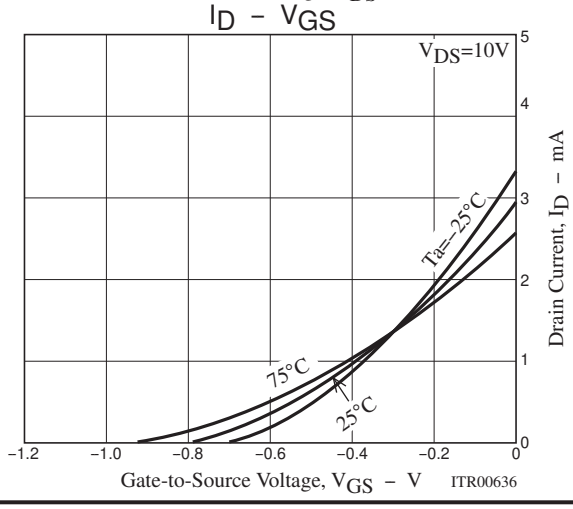
Ordering Information

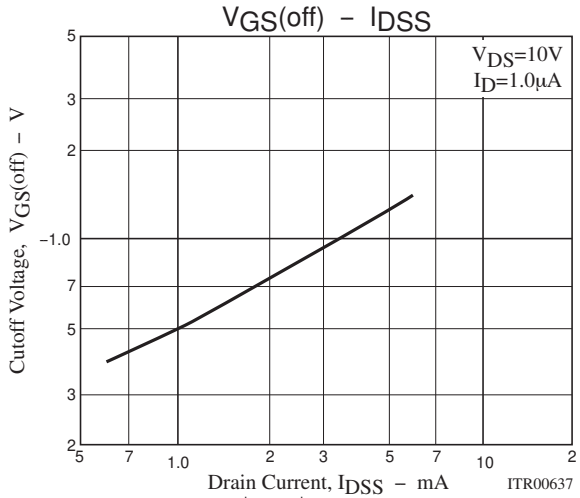
Device	Package	Shipping	memo
2SK3796-2-TL-E	SMCP	3,000pcs./reel	Pb Free
2SK3796-3-TL-E	SMCP	3,000pcs./reel	
2SK3796-4-TL-E	SMCP	3,000pcs./reel	

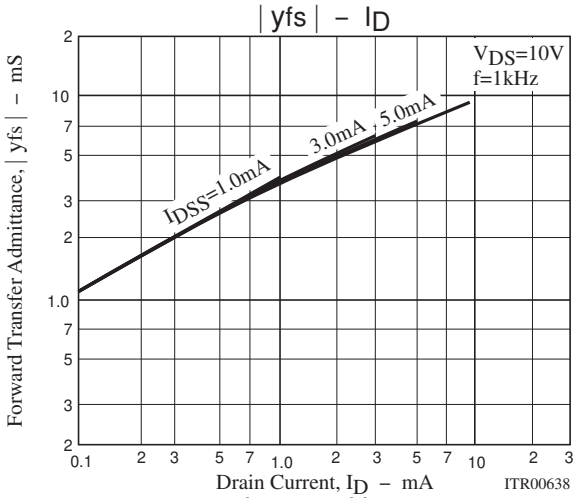


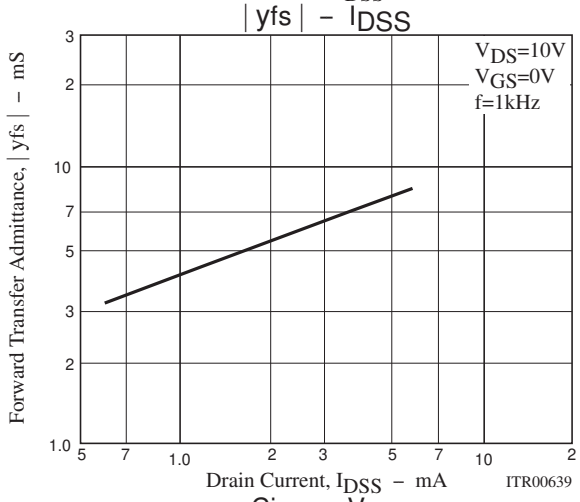


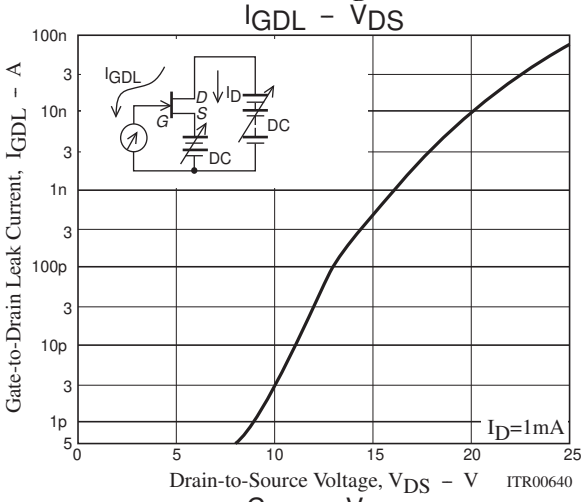


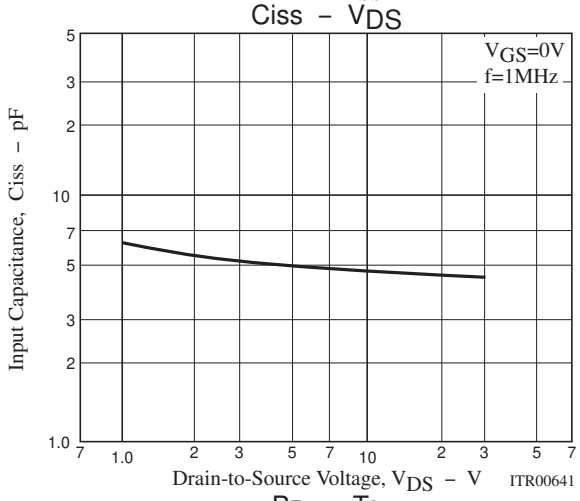


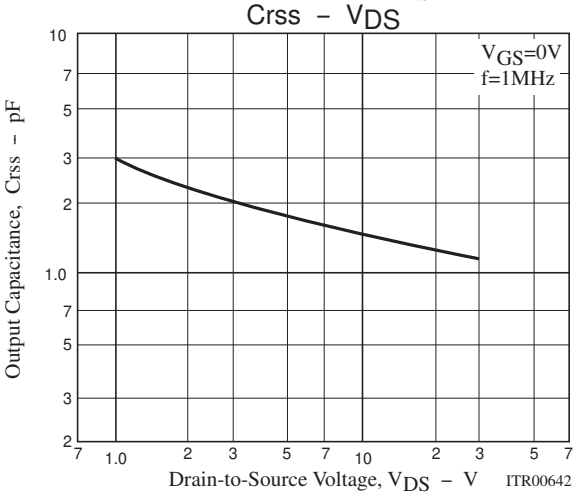

VGS(off) – IDSS
VDS=10V
ID=1.0μA
Cutoff Voltage, VGS(off) – V
Drain Current, IDSS – mA
ITR00637

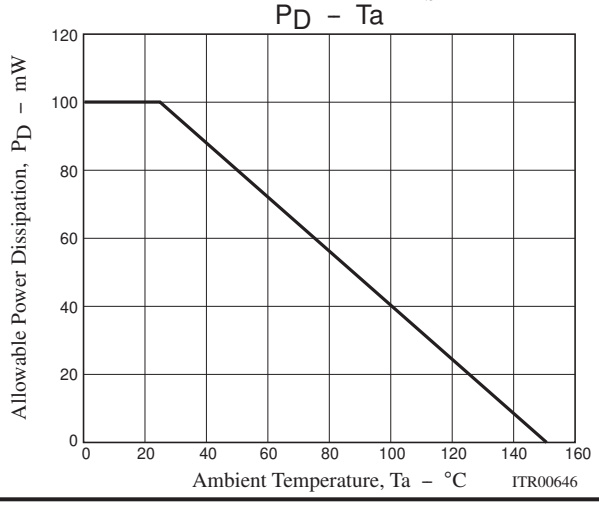

| yfs | – ID
VDS=10V
f=1kHz
IDSS=1.0mA
3.0mA
5.0mA
Forward Transfer Admittance, | yfs | – mS
Drain Current, ID – mA
ITR00638


| yfs | – IDSS
VDS=10V
VGS=0V
f=1kHz
Forward Transfer Admittance, | yfs | – mS
Drain Current, IDSS – mA
ITR00639


IGDL – VDS
IGDL
D
G
S
ID
DC
DC
ID=1mA
Gate-to-Drain Leak Current, IGDL – A
Drain-to-Source Voltage, VDS – V
ITR00640


Ciss – VDS
VGS=0V
f=1MHz
Input Capacitance, Ciss – pF
Drain-to-Source Voltage, VDS – V
ITR00641


Crss – VDS
VGS=0V
f=1MHz
Output Capacitance, Crss – pF
Drain-to-Source Voltage, VDS – V
ITR00642


PD – Ta
Allowable Power Dissipation, PD – mW
Ambient Temperature, Ta – °C
ITR00646

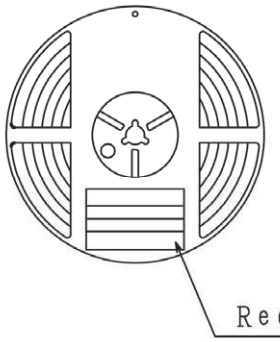
Embossed Taping Specification

2SK3796-2-TL-E, 2SK3796-3-TL-E, 2SK3796-4-TL-E

1. Packing Format

Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
SMCP	SMCP	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

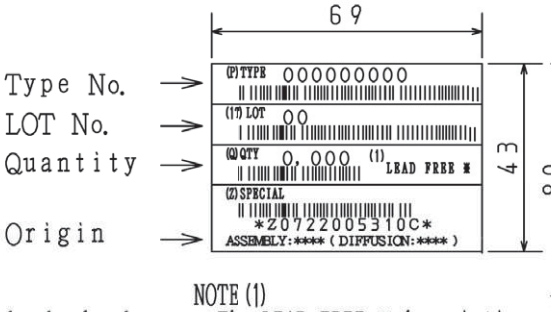
Packing method



Reel label

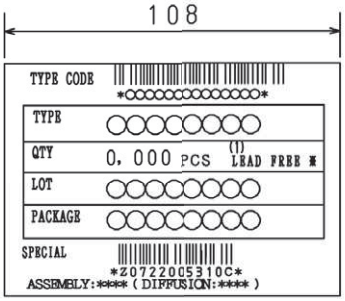
Reel label, Inner box label

(unit:mm)



Outer box label

It is a label at the time of factory shipments. The form of a label may change in physical distribution process.

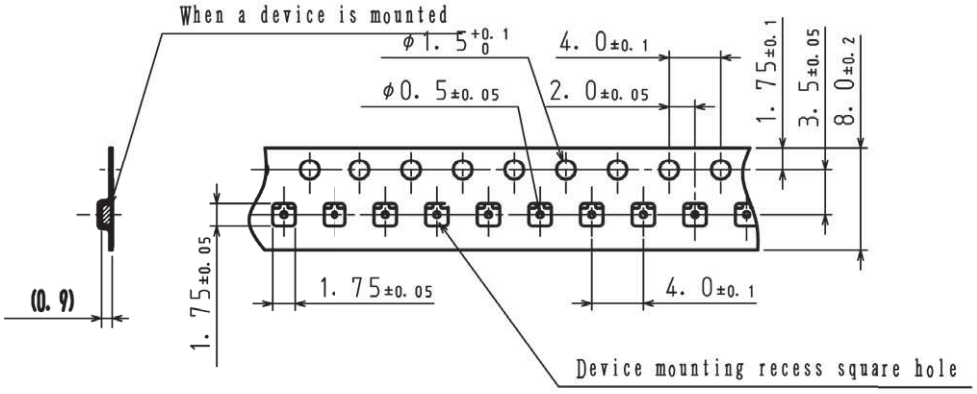


NOTE (1)
The LEAD FREE ※ description shows that the surface treatment of the terminal is lead free.

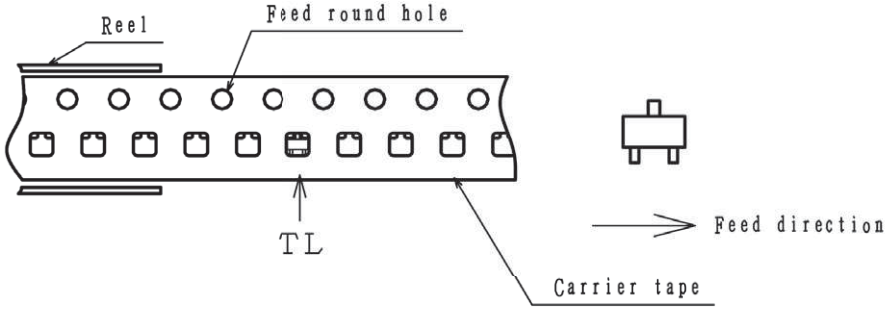
Label	JEITA Phase
••••••••••	JEITA Phase 3

2. Taping configuration

2-1. Carrier tape size (unit:mm)



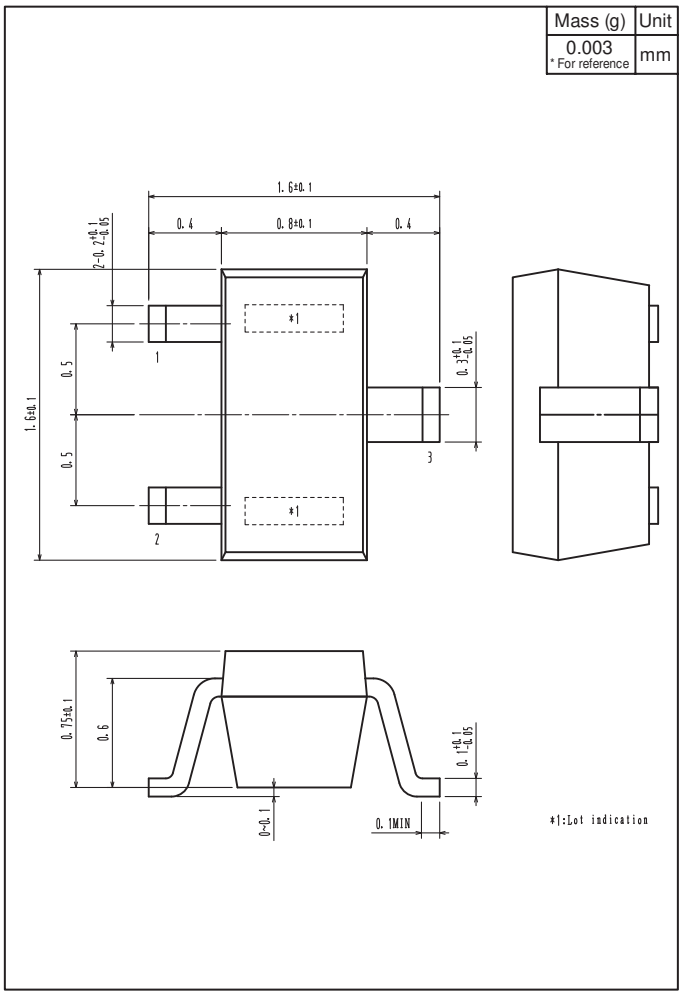
2-2. Device placement direction



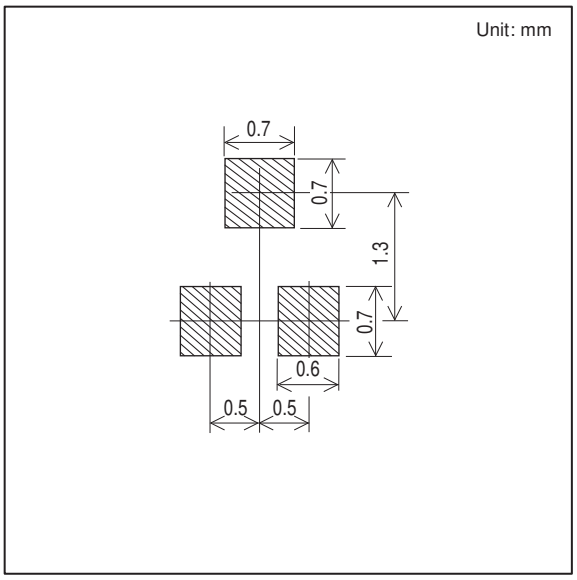
Those with one electrode terminal on the feed hole side·····TL

Outline Drawing

2SK3796-2-TL-E, 2SK3796-3-TL-E, 2SK3796-4-TL-E



Land Pattern Example



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