2SK3796



http://onsemi.com

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

Applications

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

Features

- · Small IGSS
- · Small Ciss

Specifications

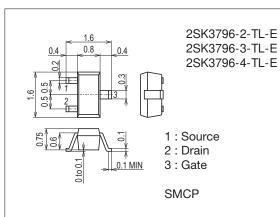
Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|------------------|------------|-------------|------|
| Drain-to-Source Voltage | V _{DSX} | | 30 | V |
| Gate-to-Drain Voltage | V _{GDS} | | -30 | ٧ |
| Gate Current | IG | | 10 | mA |
| Drain Current | ID | | 10 | mA |
| Allowable Power Dissipation | PD | | 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

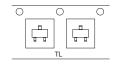


Product & Package Information

• Package : SMCP

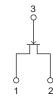
• JEITA, JEDEC : SC-75, SOT-416 • Minimum Packing Quantity : 3,000 pcs./reel

Packing Type: TL Marking





Electrical Connection



Electrical Characteristics at Ta=25°C

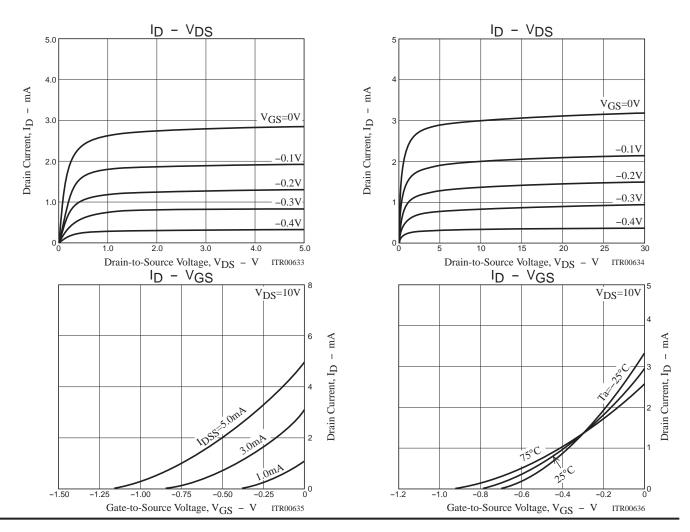
| Parameter | Symbol | Conditions | Ratings | | | Unit | |
|--|-----------------------|---|---------|-------|------|-------|--|
| Faranteter | Symbol | | min | typ | max | UIIIL | |
| Gate-to-Drain Breakdown Voltage | V(BR)GDS | IG=-10μA, VDS=0V | -30 | | | V | |
| Gate Cutoff Current | IGSS | V _{GS} =-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 | IDSS | 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 | |

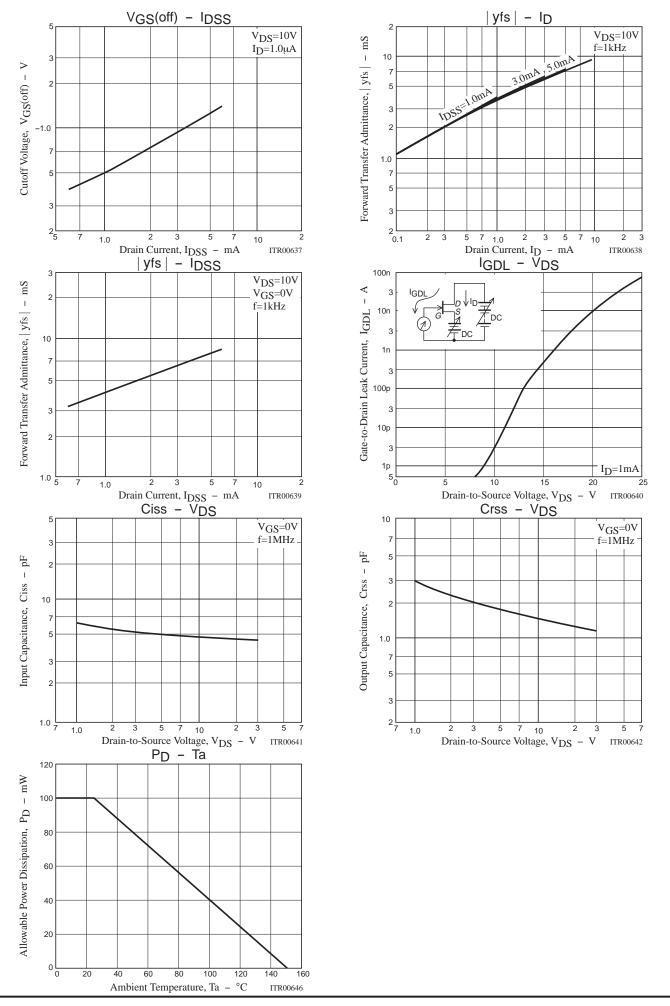
*: The 2SK3796 is classified by IDSS as follows: (unit: mA)

| Rank | 2 | 3 | 4 | |
|------|------------|------------|------------|--|
| IDSS | 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 | |
| 2SK3796-3-TL-E | SMCP | 3,000pcs./reel | Pb Free |
| 2SK3796-4-TL-E | SMCP | 3,000pcs./reel | |



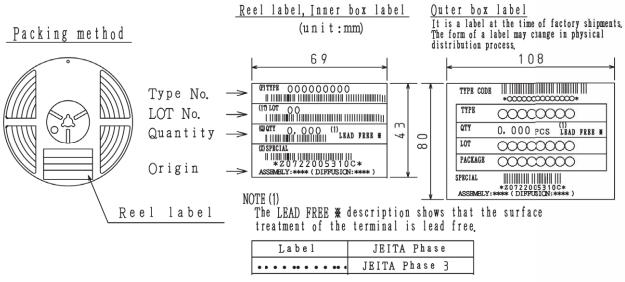


Embossed Taping Specification

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

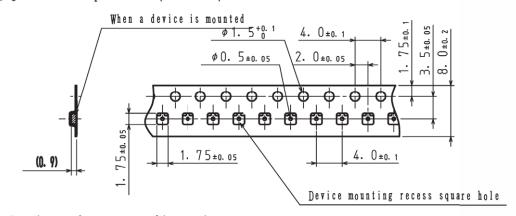
1. Packing Format

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

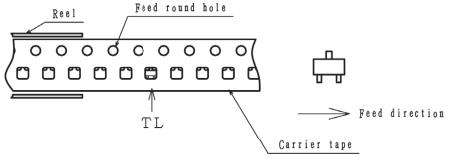


7. Taping configuration

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



2-2. Device placement direction



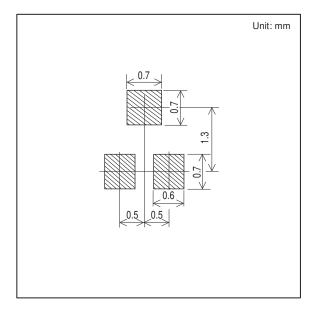
Those with one electrode terminal on the feed hole side.....TL

Outline Drawing

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

Mass (g) Unit 0.003 mm

Land Pattern Example



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