# 2SK536

# N-Channel MOSFET 50V, 100mA, Single CP



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### Features

- Large | yfs |
- Enhancement type
- · Low ON-state resistance

# **Specifications**

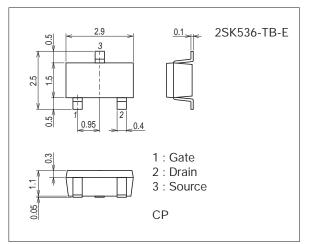
#### Absolute Maximum Ratings at Ta= $25^{\circ}C$

| Parameter                   | Symbol          | Conditions | Ratings     | Unit |
|-----------------------------|-----------------|------------|-------------|------|
| Drain to Source Voltage     | VDS             |            | 50          | V    |
| Gate to Source Voltage      | V <sub>GS</sub> |            | ±12         | V    |
| Drain Current               | ID              |            | 100         | mA   |
| Drain Current(Pulse)        | IDP             |            | 300         | mA   |
| Allowable Power Dissipation | PD              |            | 200         | mW   |
| Channel Temperature         | Tch             |            | 125         | °C   |
| Storage Temperature         | Tstg            |            | -55 to +125 | °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-010

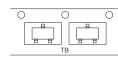


#### Ordering & Package Information

| -           | _                                     |                |         |
|-------------|---------------------------------------|----------------|---------|
| Device      | Package                               | Shipping       | memo    |
| 2SK536-TB-E | CP<br>SC-59, TO-236, SOT-23, TO-236AB | 3,000pcs./reel | Pb-Free |

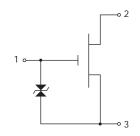
#### Packing Type: TB

#### Marking

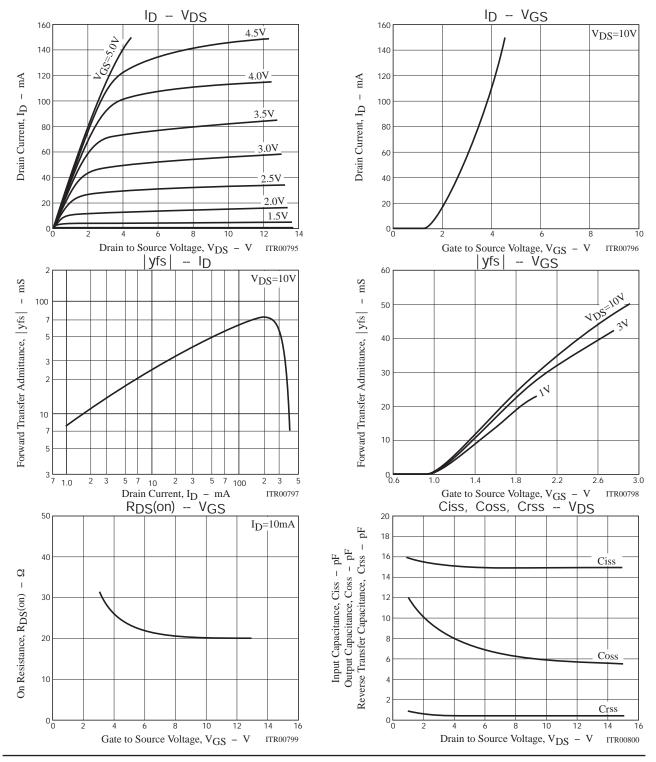




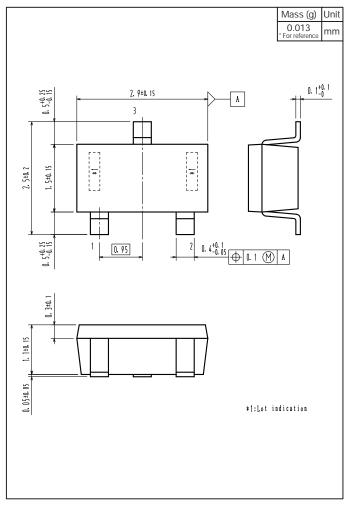
#### **Electrical Connection**



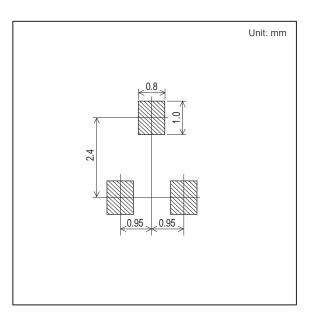
| Parameter                         | Symbol                | Conditions  |     | Ratings |     |      |
|-----------------------------------|-----------------------|---|-----|---------|-----|------|
|                                   |                       |   | min | typ     | max | Unit |
| Drain to Source Breakdown Voltage | V(BR)DS               | ID=10μA, VGS=0V                                   | 50  |         |     | V    |
| Gate to Source Leakage Current    | IGSS                  | V <sub>GS</sub> =10V, V <sub>DS</sub> =0V         |     | 0.01    | 10  | nA   |
| Zero-Gate Voltage Drain Current   | IDSS                  | V <sub>DS</sub> =20V, V <sub>GS</sub> =0V         |     |         | 1   | μΑ   |
| Cutoff Voltage                    | I <sub>GS</sub> (off) | V <sub>DS</sub> =10V, I <sub>D</sub> =100µA       | 0.3 | 0.9     | 1.5 | V    |
| Forward Transfer Admittance       | yfs                   | VDS=10V, ID=50mA, f=1kHz                          | 25  | 40      |     | mS   |
| Input Capacitance                 | Ciss                  | V <sub>DS</sub> =10V, V <sub>GS</sub> =0V, f=1MHz |     | 15      |     | рF   |
| Output Capacitance                | Coss                  |   |     | 6       |     | рF   |
| Reverse Transfer Capacitance      | Crss                  |   |     | 0.5     |     | pF   |
| Drain to Source ON Resistance     | RDS(on)               | VGS=10V, ID=10mA                                  |     | 20      |     | Ω    |



### Outline Drawing 2SK536-TB-E



## Land Pattern Example



# Note on usage : Since the 2SK536 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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