



SANYO Semiconductors

# DATA SHEET

An ON Semiconductor Company

## 2SK3666 — N-Channel Junction Silicon FET Low-Frequency General-Purpose Amplifier, Impedance Converter Applications

### Applications

- Low-frequency general-purpose amplifier, impedance conversion, infrared sensor applications

### Features

- Small IGSS
- Small Ciss

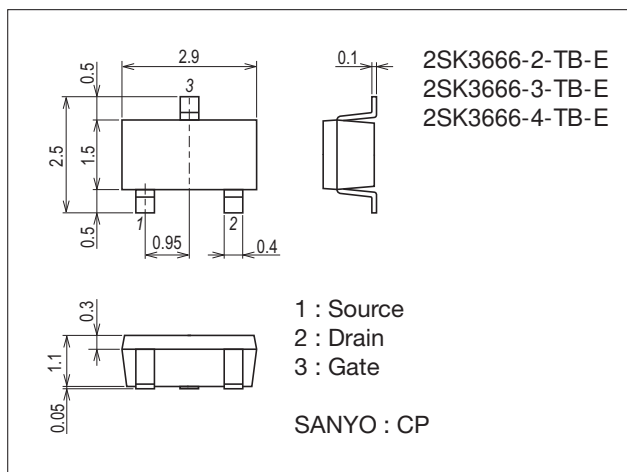
### Specifications

**Absolute Maximum Ratings** at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V <sub>DSX</sub>		30	V
Gate-to-Drain Voltage	V <sub>GDS</sub>		-30	V
Gate Current	I <sub>G</sub>		10	mA
Drain Current	I <sub>D</sub>		10	mA
Allowable Power Dissipation	P <sub>D</sub>		200	mW
Junction Temperature	T <sub>J</sub>		150	°C
Storage Temperature	T <sub>stg</sub>		-55 to +150	°C

### Package Dimensions

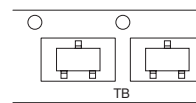
unit : mm (typ)  
7013A-011



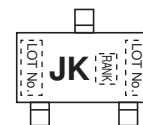
### Product & Package Information

- Package : CP
- JEITA, JEDEC : SC-59, TO-236, SOT-23, TO-236AB
- Minimum Packing Quantity : 3,000 pcs./reel

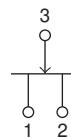
### Packing Type: TL



### Marking



### Electrical Connection



# 2SK3666

## Electrical Characteristics at Ta=25°C

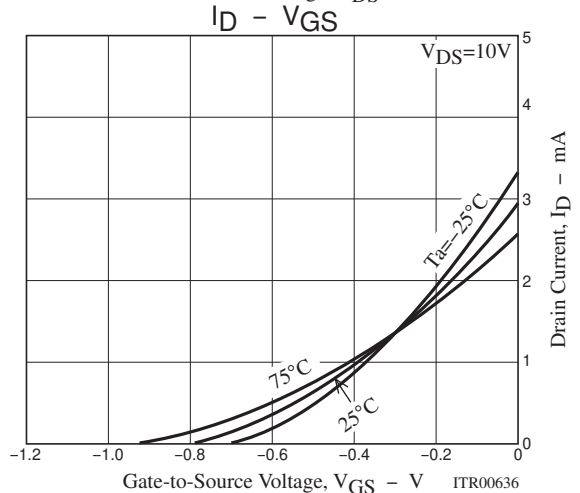
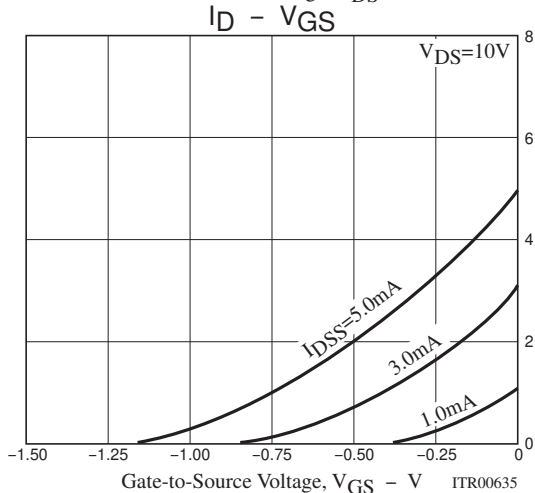
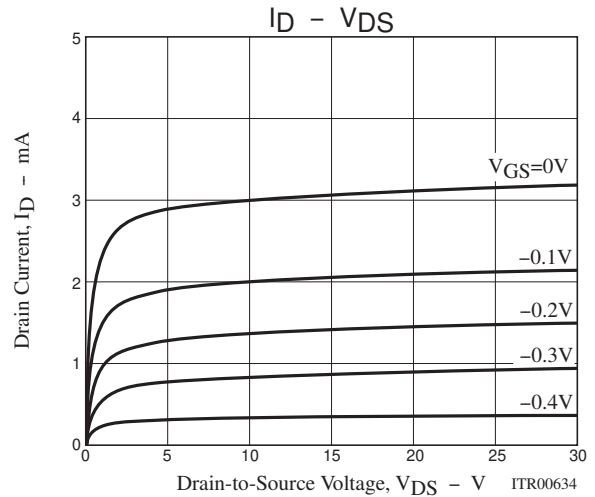
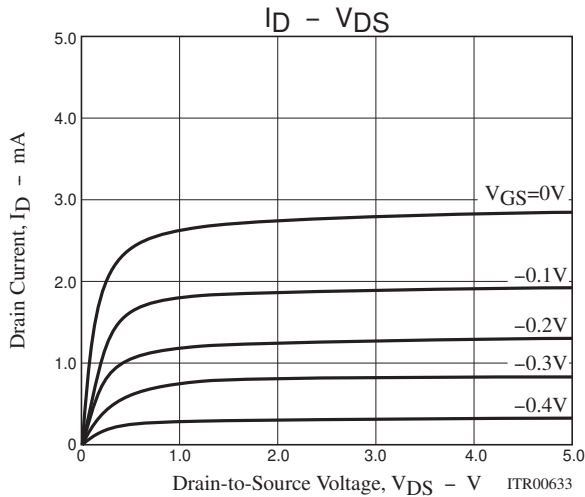
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	V(BR)GDS	I <sub>G</sub> =-10μA, V <sub>DS</sub> =0V	-30			V
Gate Cutoff Current	I <sub>GSS</sub>	V <sub>GS</sub> =-20V, V <sub>DS</sub> =0V			-1.0	nA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =1μA	-0.18	-0.95	-2.2	V
Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V	0.6*		6.0*	mA
Forward Transfer Admittance	y <sub>fs</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V, f=1kHz	3.0	6.5		mS
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V, f=1MHz		4		pF
Reverse Transfer Capacitance	C <sub>rss</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V, f=1MHz		1.1		pF
Static Drain-to-Source On-State Resistance	R <sub>DS(on)</sub>	V <sub>DS</sub> =10mV, V <sub>GS</sub> =10V		200		Ω

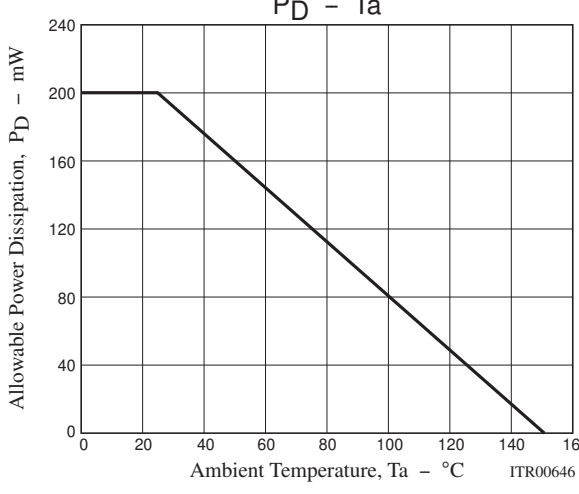
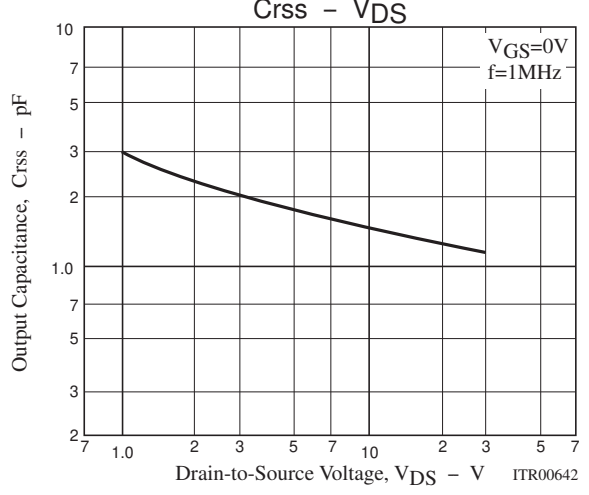
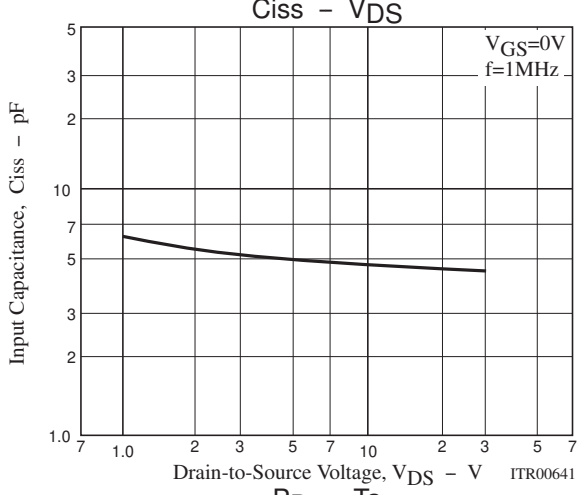
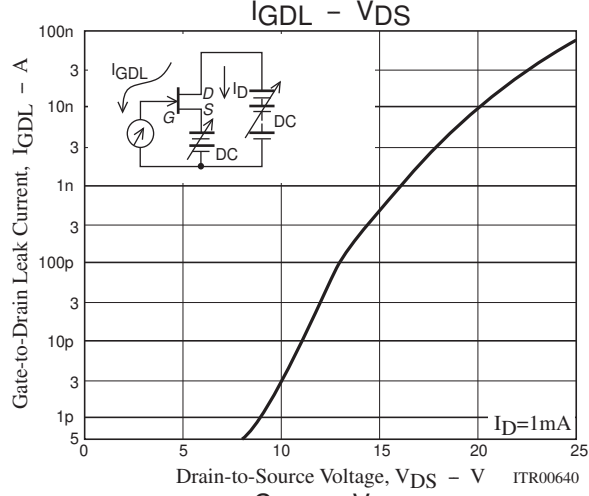
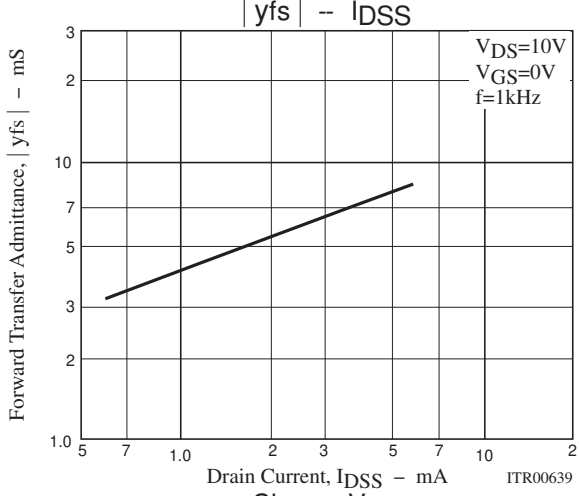
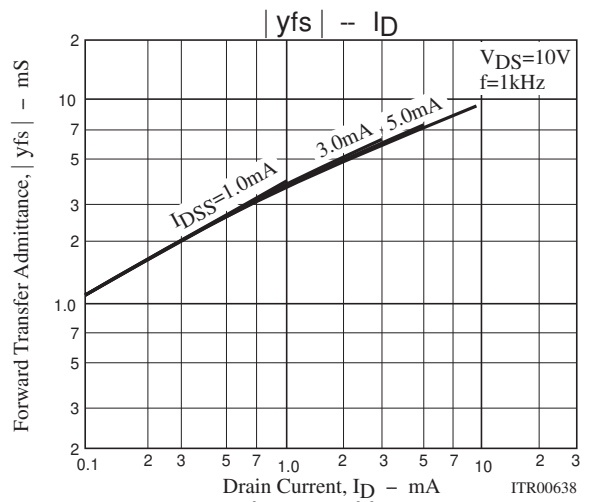
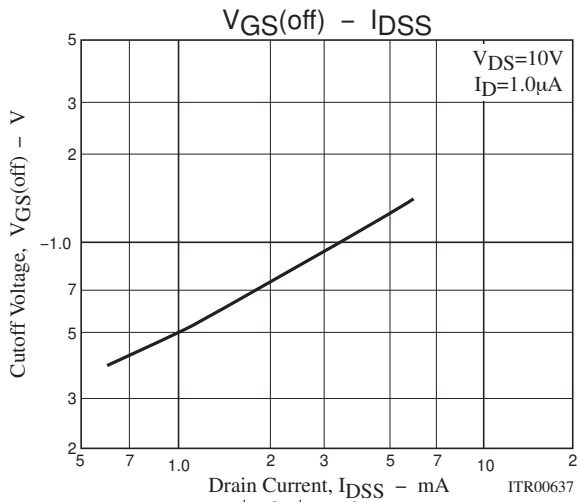
\* : The 2SK3666 is classified by I<sub>DSS</sub> as follows : (unit : mA)

Rank	2	3	4
I <sub>DSS</sub>	0.6 to 1.5	1.2 to 3.0	2.5 to 6.0

## Ordering Information

Device	Package	Shipping	memo
2SK3666-2-TB-E	CP	3,000pcs./reel	Pb Free
2SK3666-3-TB-E	CP	3,000pcs./reel	
2SK3666-4-TB-E	CP	3,000pcs./reel	





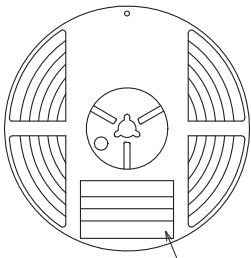
**Embossed Taping Specification**

2SK3666-2-TB-E, 2SK3666-3-TB-E, 2SK3666-4-TB-E

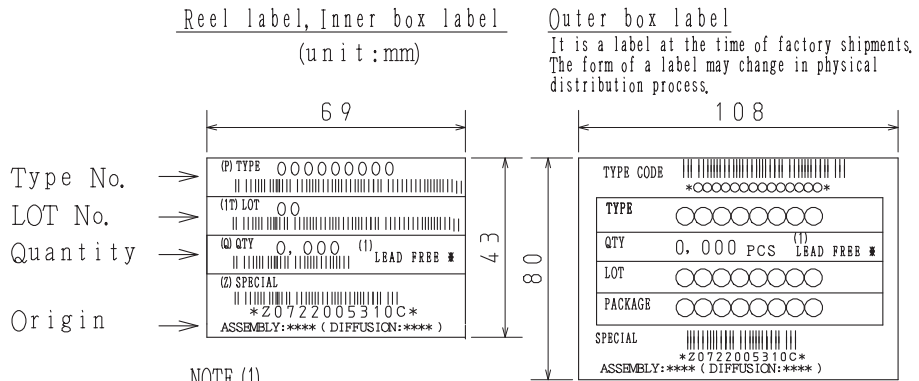
1. Packing Format

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)
CP	CP	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



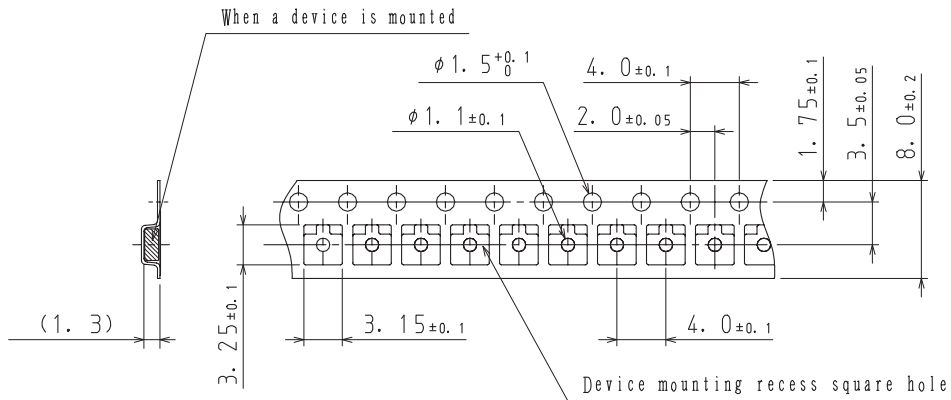
NOTE (1)

The LEAD FREE \* description shows that the surface treatment of the terminal is lead free.

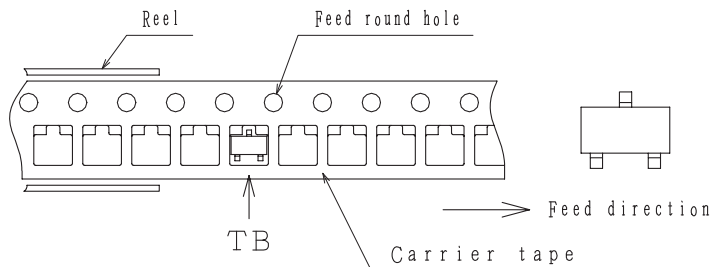
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



2-2. Device placement direction

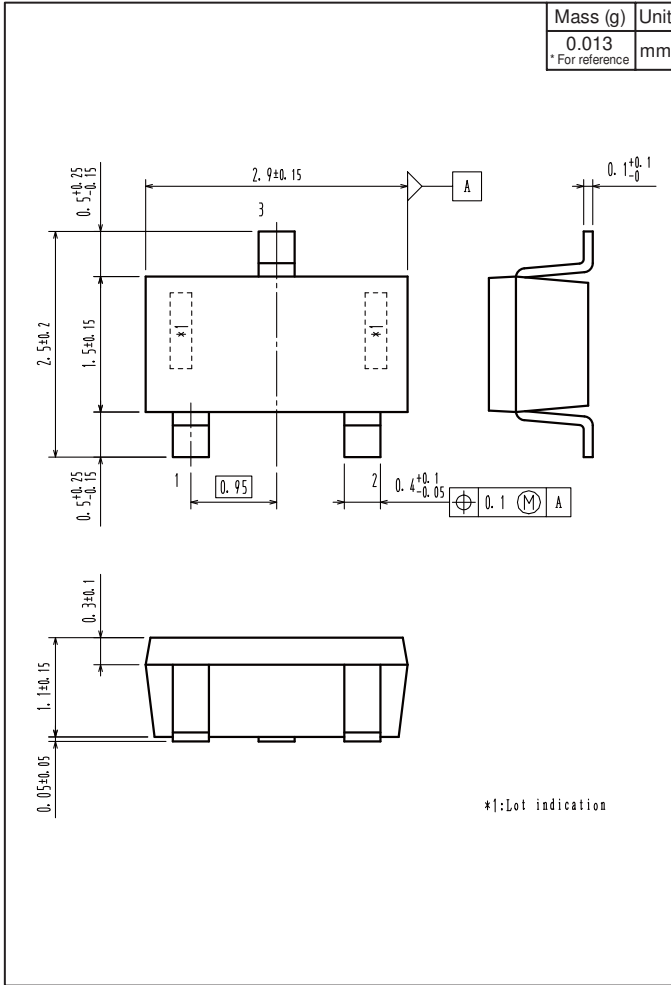


Those with one electrode terminal on the feed hole side.....TB

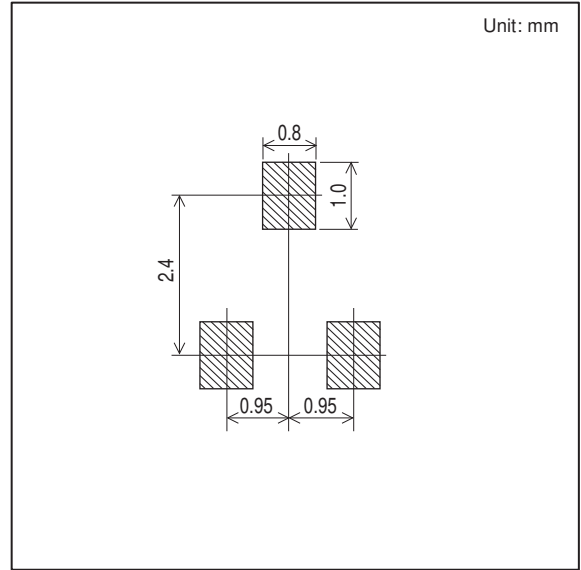
# 2SK3666

## Outline Drawing

2SK3666-2-TB-E, 2SK3666-3-TB-E, 2SK3666-4-TB-E



## Land Pattern Example



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