



ON Semiconductor®

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# 2SK3666

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

### Applications

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

### Features

- Small IGSS
- Small Ciss

### Specifications

Absolute Maximum Ratings at Ta=25°C

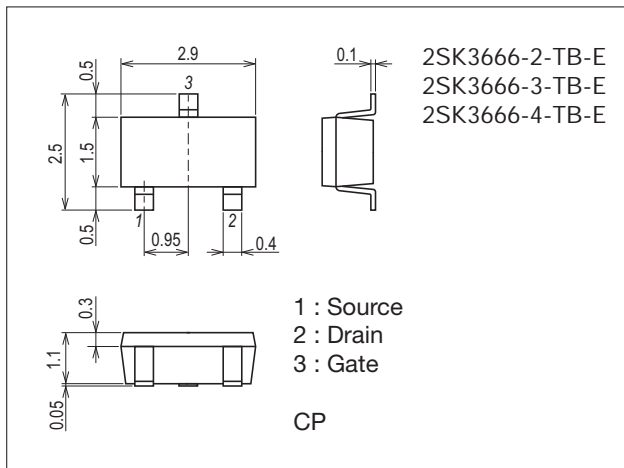
Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	$V_{DSX}$		30	V
Gate-to-Drain Voltage	$V_{GDS}$		-30	V
Gate Current	$I_G$		10	mA
Drain Current	$I_D$		10	mA
Allowable Power Dissipation	$P_D$		200	mW
Junction Temperature	$T_j$		150	°C
Storage Temperature	$T_{stg}$		-55 to +150	°C

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)

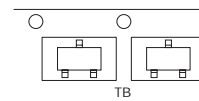
7013A-011



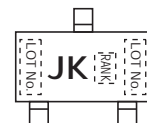
### Product & Package Information

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

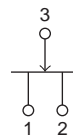
### Packing Type: TL



### Marking



### Electrical Connection



## Electrical Characteristics at Ta=25°C

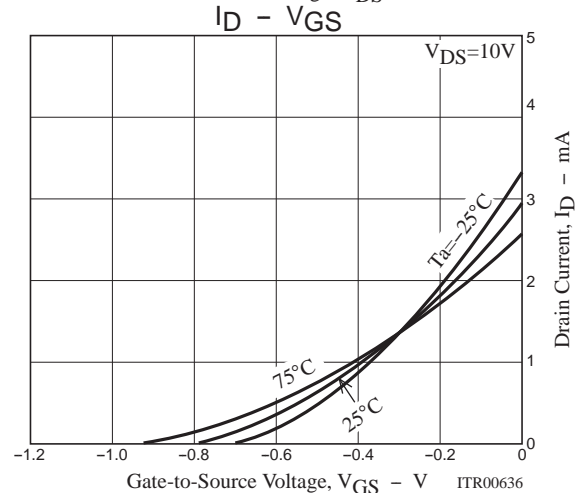
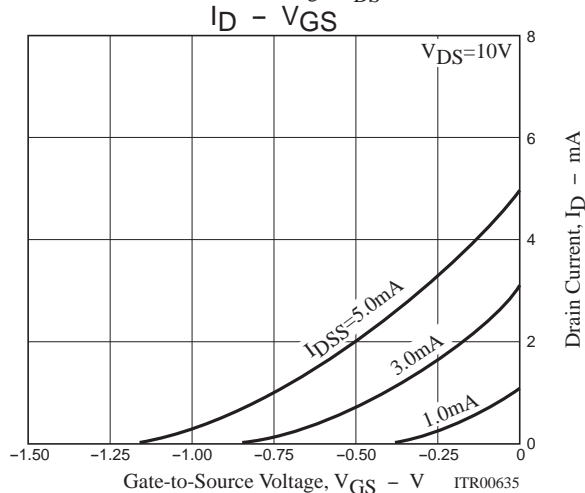
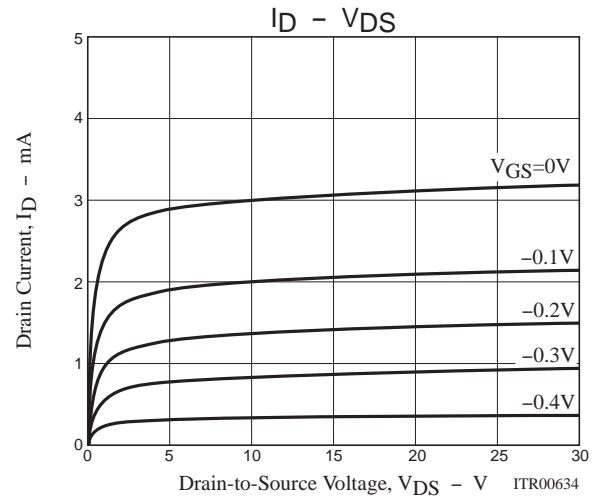
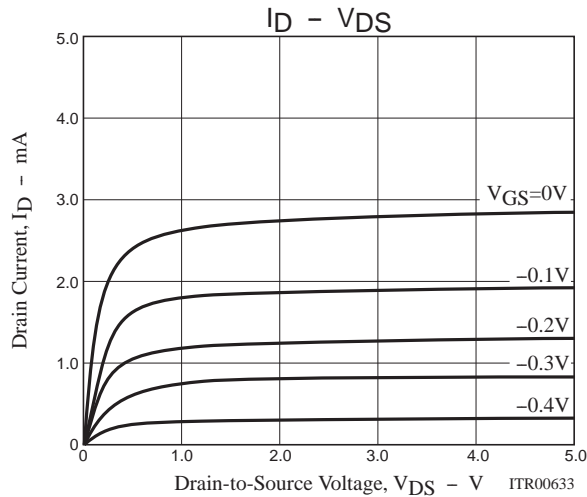
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	V(BR)GDS	I <sub>G</sub> =-10μA, V <sub>DS</sub> =0V	-30			V
Gate Cutoff Current	I <sub>GSS</sub>	V <sub>GS</sub> =-20V, V <sub>DS</sub> =0V			-1.0	nA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =10V, I <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

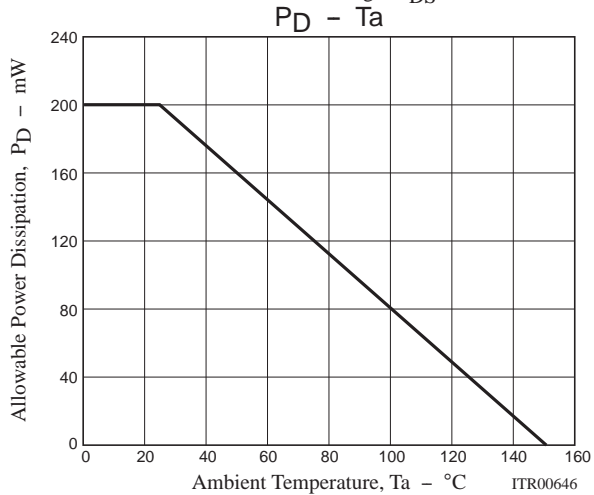
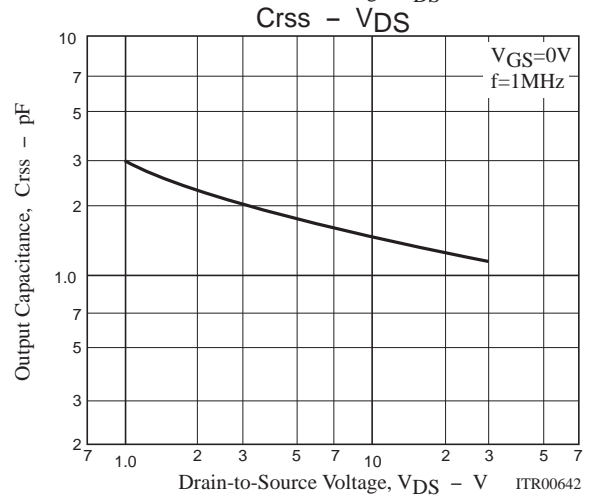
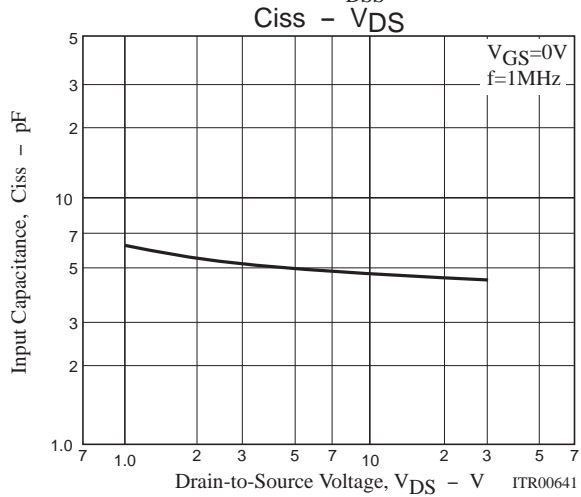
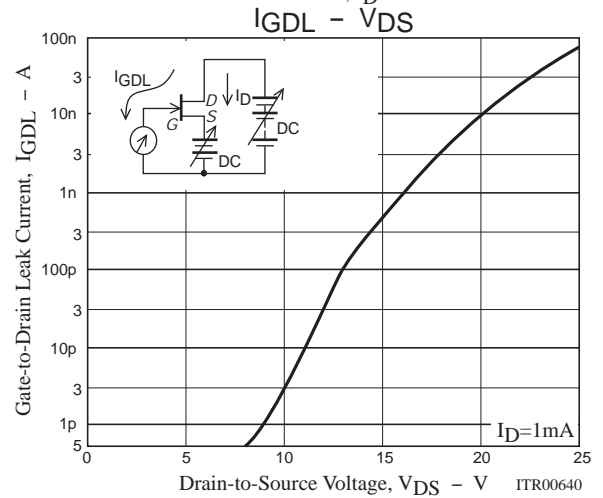
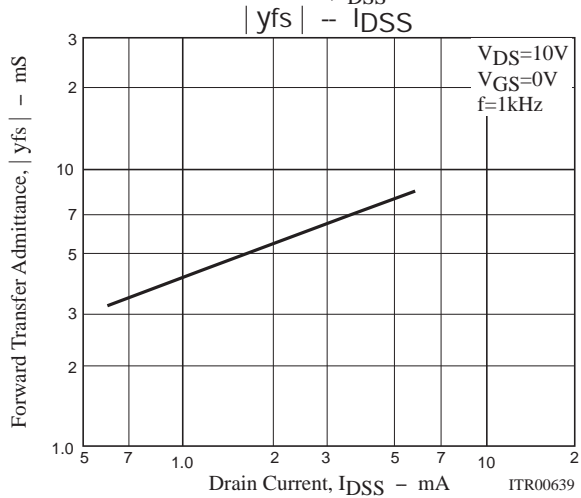
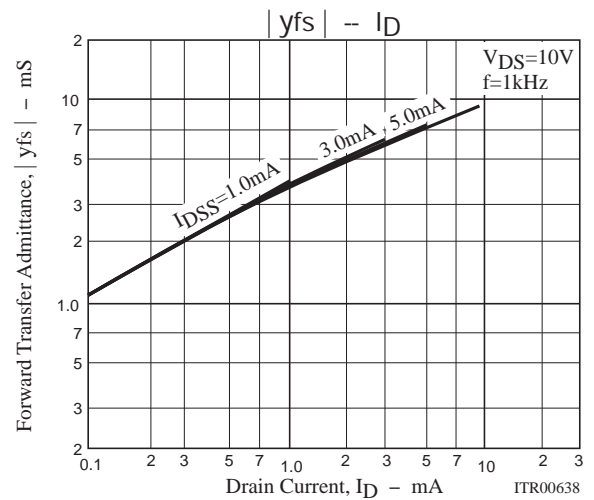
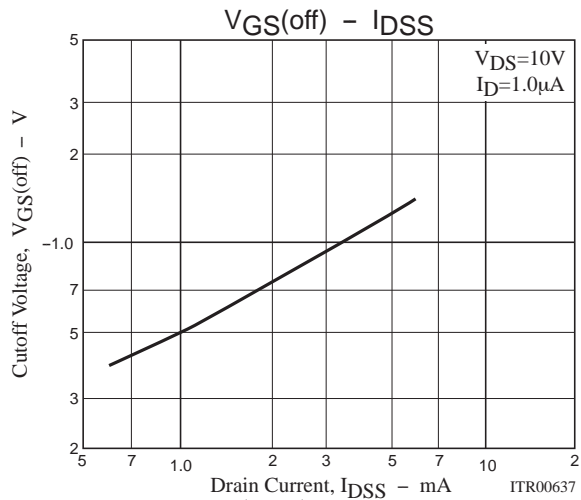
\* : The 2SK3666 is classified by I<sub>DSS</sub> as follows : (unit : mA)

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

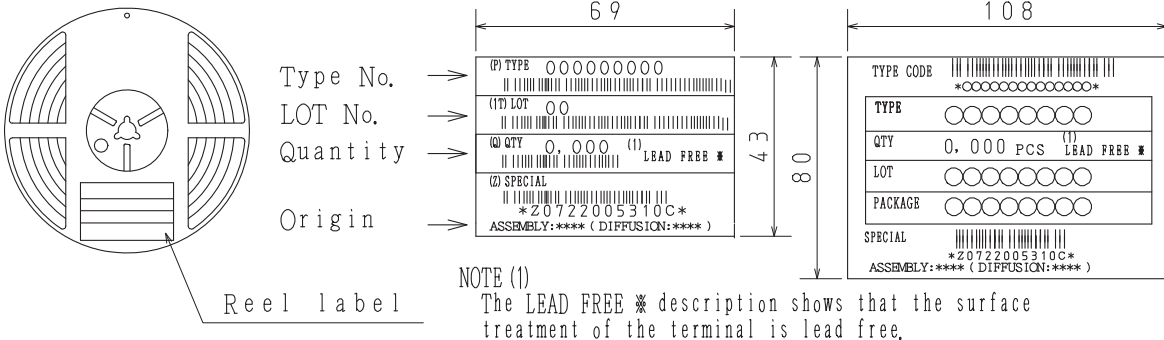
Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
CP	CP	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

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.

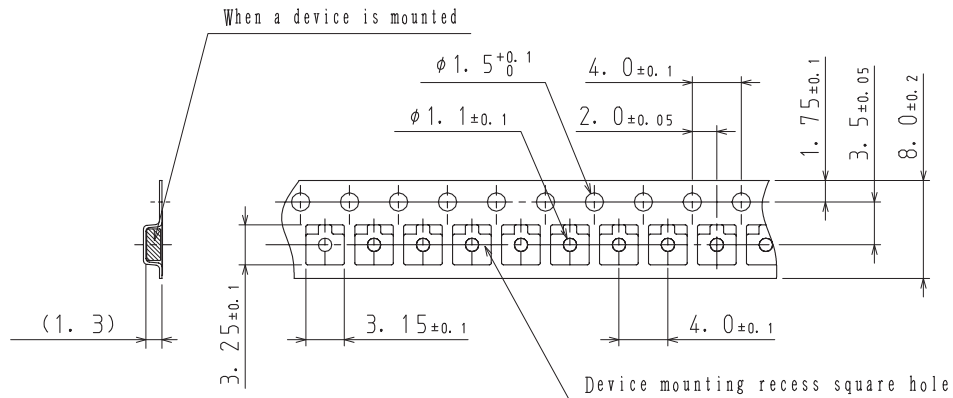
#### Packing method



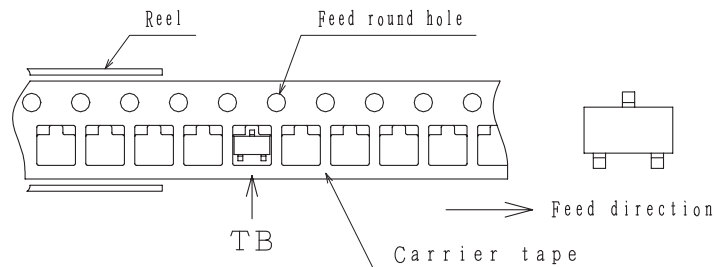
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

### 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



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