



SANYO Semiconductors

# DATA SHEET

An ON Semiconductor Company

## 3SK263 — N-Channel Silicon MOSFET (Dual Gate) FM Tuner, VHF Tuner, High-Frequency Amplifier Applications

### Features

- Enhancement type
- Small noise figure
- Small cross modulation

### Specifications

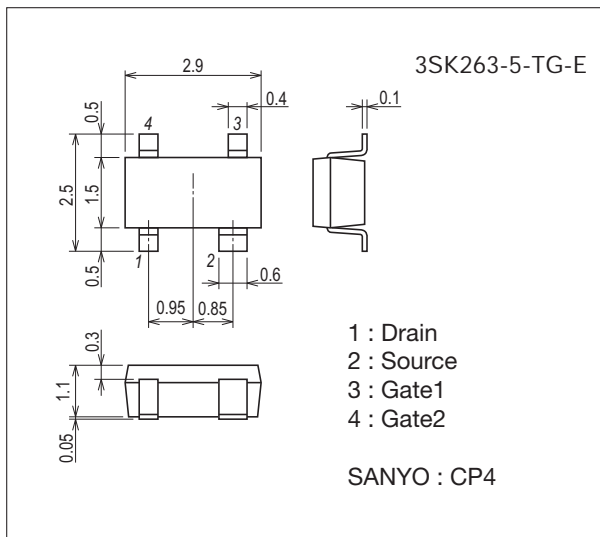
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V <sub>DS</sub>		15	V
Gate1-to-Source Voltage	V <sub>G1S</sub>		±8	V
Gate2-to-Source Voltage	V <sub>G2S</sub>		±8	V
Drain Current	I <sub>D</sub>		30	mA
Allowable Power Dissipation	P <sub>D</sub>		200	mW
Channel Temperature	T <sub>ch</sub>		125	°C
Storage Temperature	T <sub>stg</sub>		-55 to +125	°C

### Package Dimensions

unit : mm (typ)

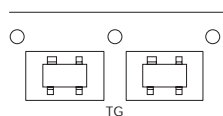
7014A-006



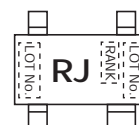
### Product & Package Information

- Package : CP4
- JEITA, JEDEC : SC-61, SC-82AB, SOT-143, SOT-343
- Minimum Packing Quantity : 3,000 pcs./reel

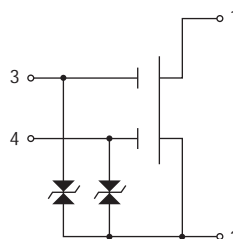
### Packing Type: TG



### Marking



### Electrical Connection



# 3SK263

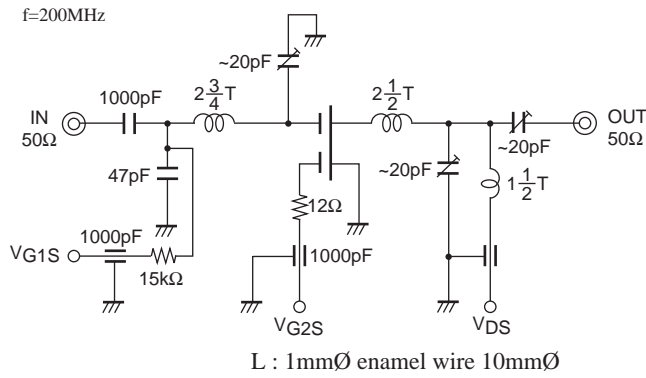
## Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Voltage	V <sub>DS</sub>	V <sub>G1S</sub> =0V, V <sub>G2S</sub> =0V, I <sub>D</sub> =100μA	15			V
Gate1-to-Source Cutoff Voltage	V <sub>G1S(off)</sub>	V <sub>DS</sub> =6V, V <sub>G2S</sub> =4V, I <sub>D</sub> =100μA	0	0.7	1.3	V
Gate2-to-Source Cutoff Voltage	V <sub>G2S(off)</sub>	V <sub>DS</sub> =6V, V <sub>G1S</sub> =3V, I <sub>D</sub> =100μA	0.1	0.9	1.6	V
Gate1-to-Source Leakage Current	I <sub>G1SS</sub>	V <sub>G1S</sub> =±6V, V <sub>G2S</sub> =V <sub>DS</sub> =0V			±50	nA
Gate2-to-Source Leakage Current	I <sub>G2SS</sub>	V <sub>G2S</sub> =±6V, V <sub>G1S</sub> =V <sub>DS</sub> =0V			±50	nA
Zero-Gate Voltage Drain Current	I <sub>D SX</sub>	V <sub>DS</sub> =6V, V <sub>G1S</sub> =1.5V, V <sub>G2S</sub> =4V	2.5*		24*	mA
Forward Transfer Admittance	y <sub>fs</sub>	V <sub>DS</sub> =6V, I <sub>D</sub> =10mA, V <sub>G2S</sub> =4V, f=1kHz		14		mS
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> =6V, f=1MHz, V <sub>G1S</sub> =0V, V <sub>G2S</sub> =4V		2.7		pF
Reverse Transfer Capacitance	C <sub>rss</sub>			0.015	0.03	pF
Power Gain	PG	V <sub>DS</sub> =6V, I <sub>D</sub> =10mA, V <sub>G2S</sub> =4V, f=200MHz	18	21		dB
Noise Figure	NF	V <sub>DS</sub> =6V, I <sub>D</sub> =10mA, V <sub>G2S</sub> =4V, f=200MHz		1.1	2.2	dB

\* : The 3SK263 is classified by I<sub>D SX</sub> as follows : (unit : mA)

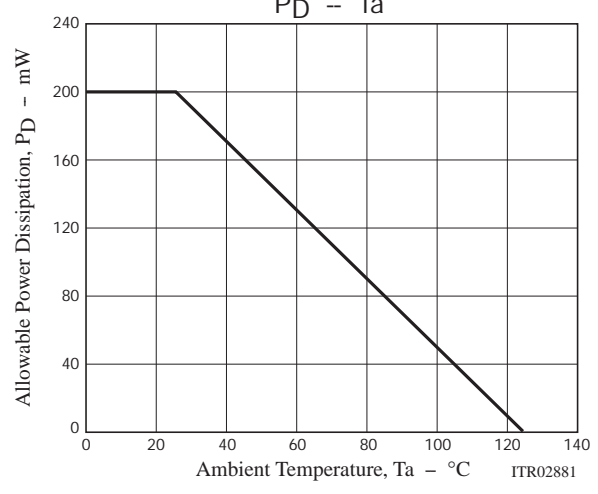
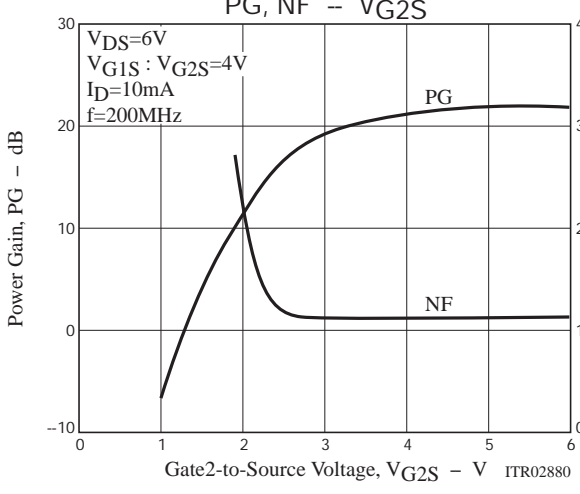
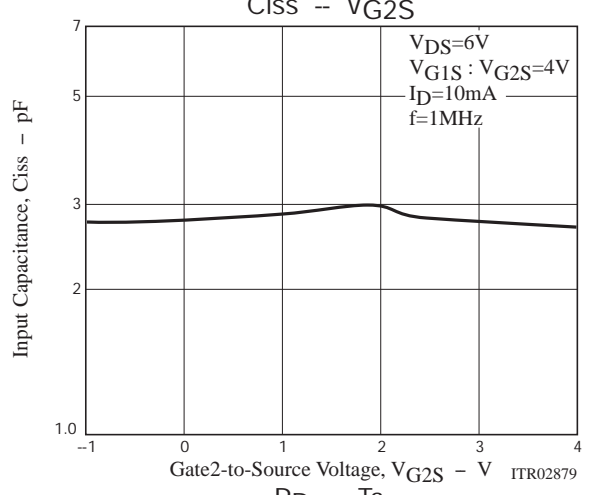
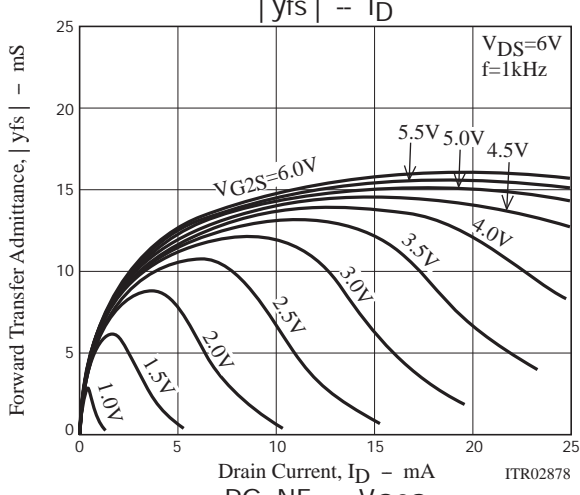
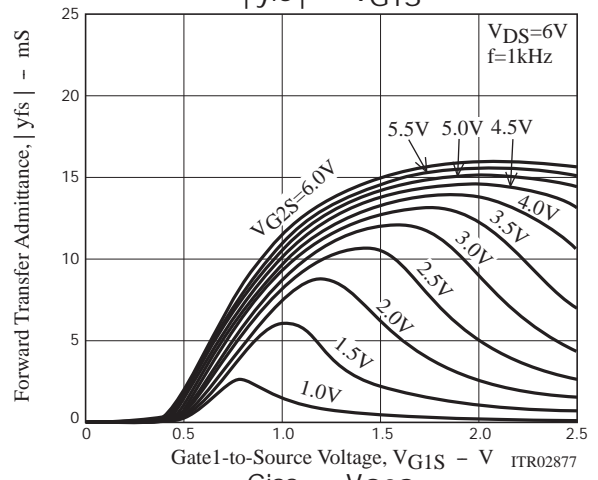
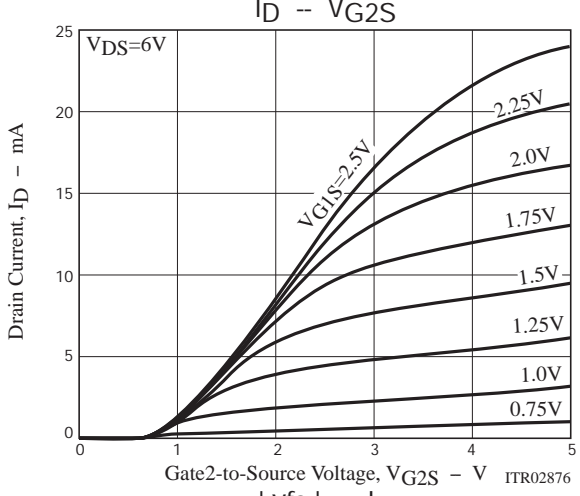
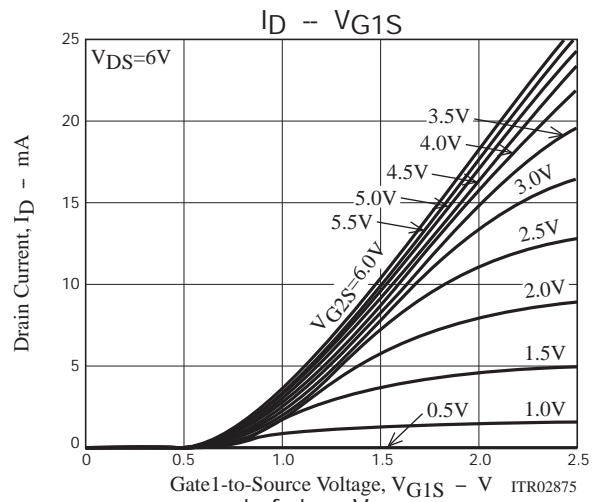
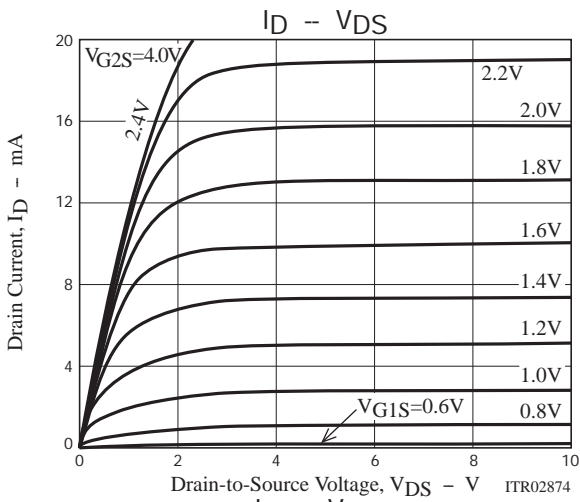
Rank	4	5	6
I <sub>D SX</sub>	2.5 to 6.0	5.0 to 12.0	10.0 to 24.0

## PG, NF Specified Test Circuit



## Ordering Information

Device	Package	Shipping	memo
3SK263-5-TG-E	CP4	3,000pcs./reel	Pb Free



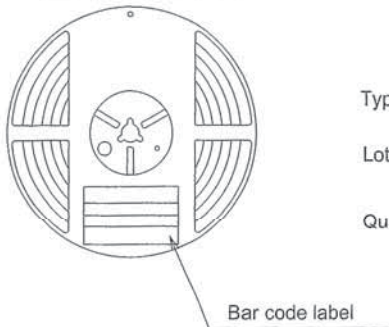
Embossed Taping Specification

3SK263-5-TG-E

Storage package Outline name	Carrier tape Type number	Maximum Number of devices contained (pcs.)			Packing format	
		Reel	Inner box	Outer box	Inner box BOX (C-1)	Outer box BOX (A-7)
CP4	CP4	3,000	15,000	90,000	5 reels contained Dimensions:mm(external). 1 8 3 × 7 2 × 1 8 5	6 inner boxes contained Dimensions:mm(external) 4 4 0 × 1 9 5 × 2 1 0

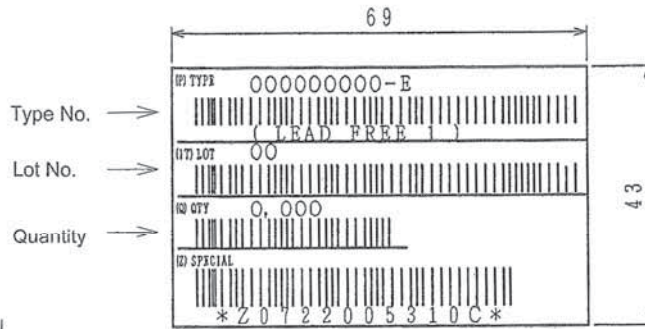
1. Packing format

Packing method



Bar code label (Example)

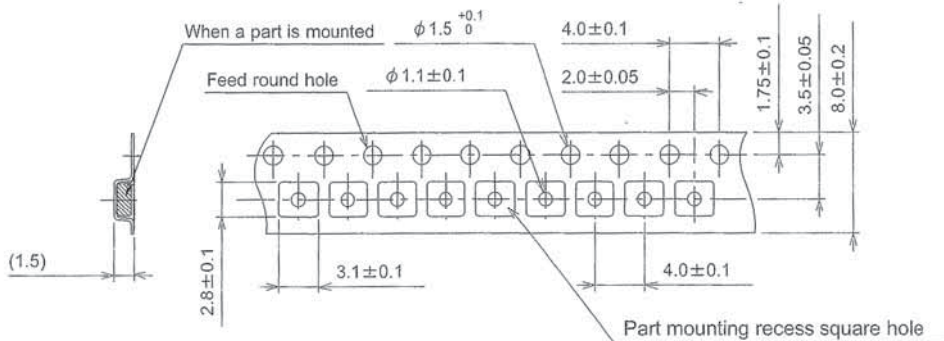
(Unit : mm)



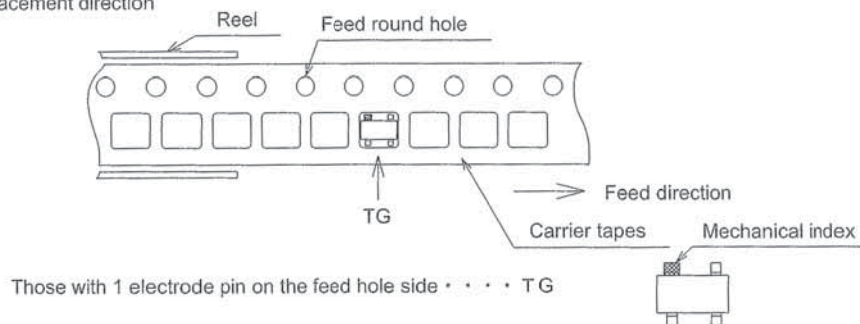
\*LEAD FREE 1 :  
Lead-free External terminal surface treatment product.

2. Taping structure

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



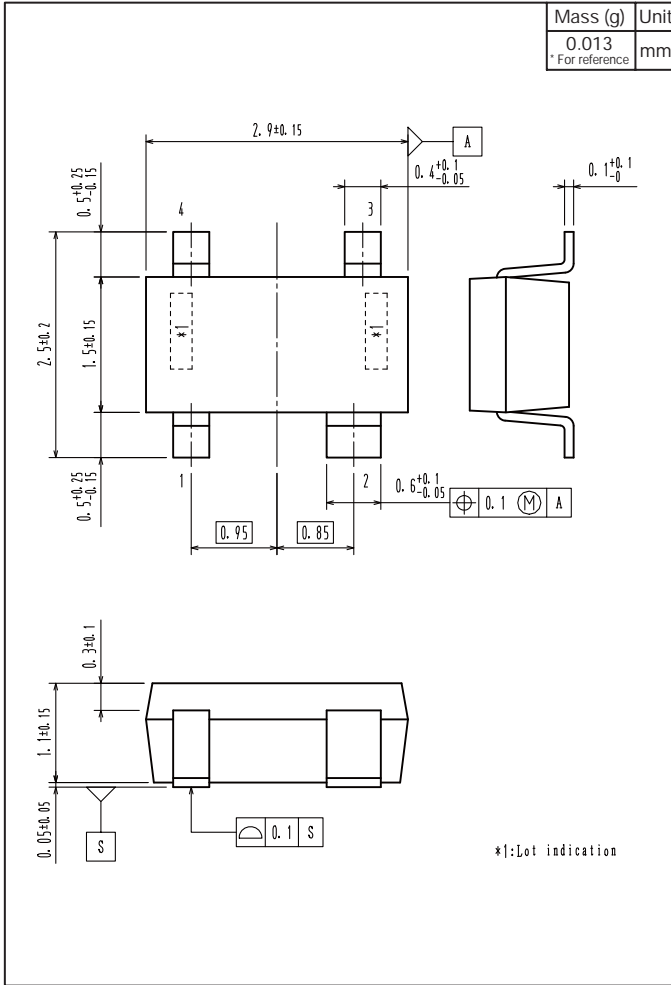
2-2. Parts placement direction



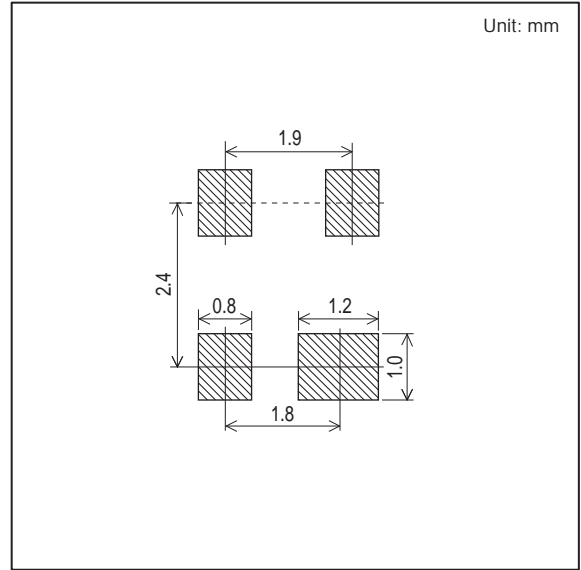
# 3SK263

## Outline Drawing

3SK263-5-TG-E



## Land Pattern Example



Note on usage : Since the 3SK263 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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