



SANYO Semiconductors

# DATA SHEET

An ON Semiconductor Company

## 2SK2394 — N-Channel Junction Silicon FET Low-Noise HF Amplifier Applications

### Applications

- AM tuner RF amplifier
- Low-noise amplifier

### Features

- Large |yfs|
- Small Ciss
- Small-sized package permitting 2SK2394-applied sets to be made small slim
- Ultralow noise figure

### Specifications

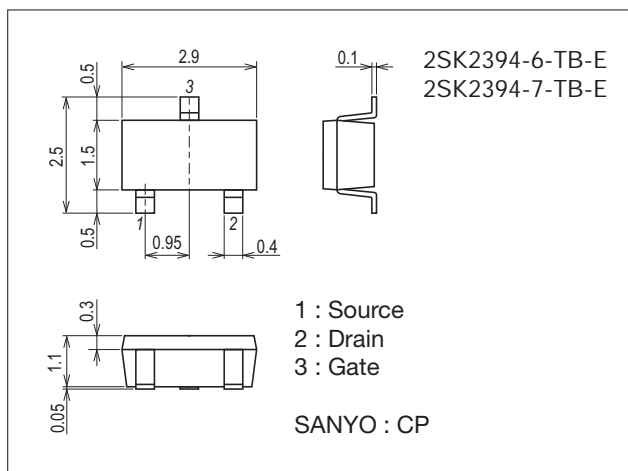
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V <sub>DSX</sub>		15	V
Gate-to-Drain Voltage	V <sub>GDS</sub>		-15	V
Gate Current	I <sub>G</sub>		10	mA
Drain Current	I <sub>D</sub>		50	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)

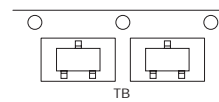
7013A-011



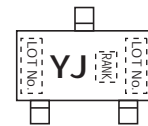
### Product & Package Information

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

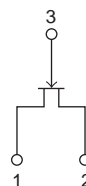
### Packing Type: TB



### Marking



### Electrical Connection



# 2SK2394

## Electrical Characteristics at Ta=25°C

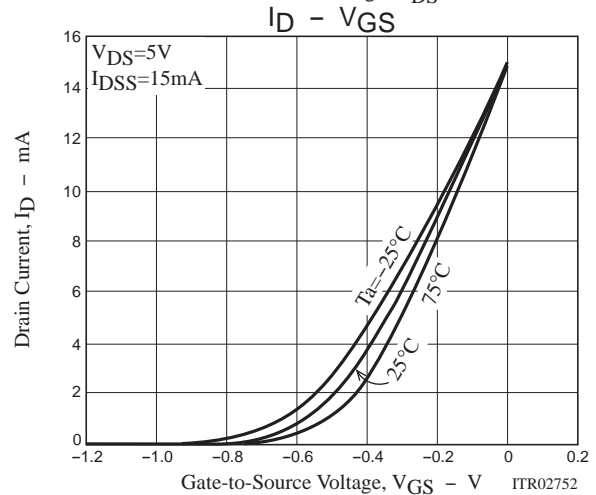
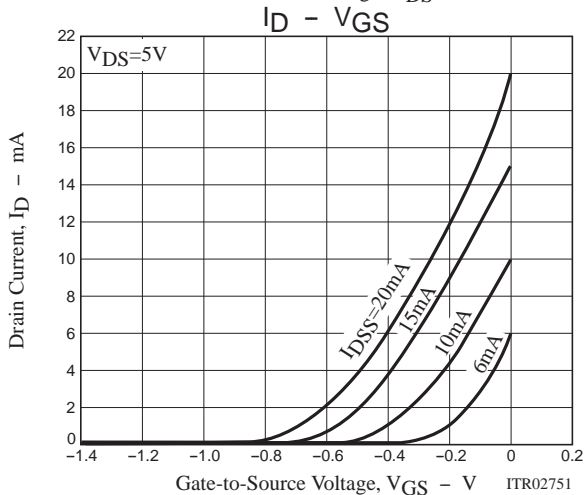
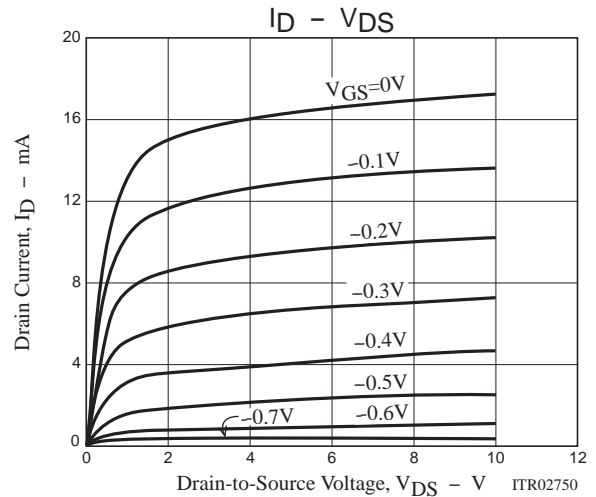
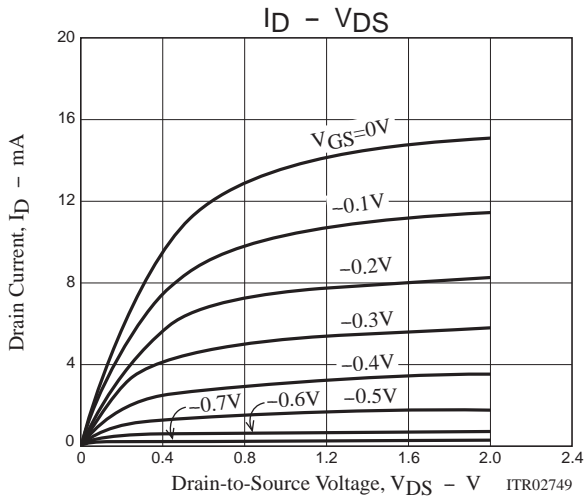
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	V(BR)GDS	IG=-10μA, VDS=0V	-15			V
Gate Cutoff Current	IGSS	VGS=-10V, VDS=0V			-1.0	nA
Cutoff Voltage	VGS(off)	VDS=5V, ID=100μA	-0.3	-0.7	-1.5	V
Drain Current	IDSS	VDS=5V, VGS=0V	6.0*		32.0*	mA
Forward Transfer Admittance	yfs	VDS=5V, VGS=0V, f=1kHz	20	38		mS
Input Capacitance	Ciss	VDS=5V, VGS=0V, f=1MHz		10.0		pF
Reverse Transfer Capacitance	Crss			2.9		pF
Noise Figure	NF	VDS=5V, RG=1kΩ, ID=1mA, f=1kHz		1.0		dB

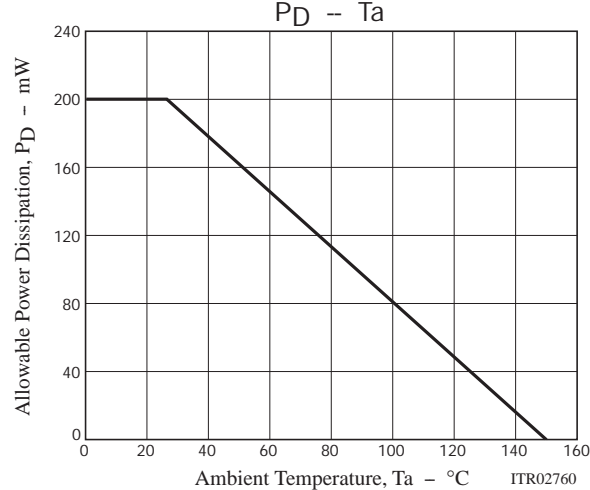
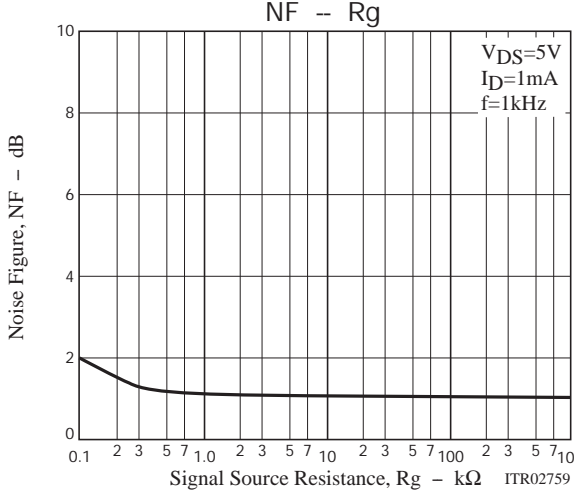
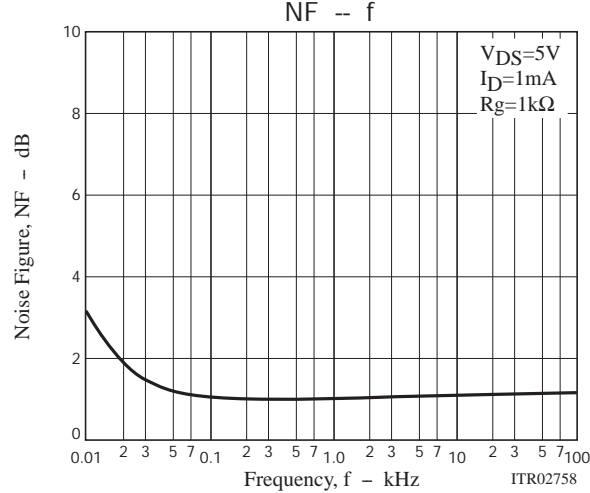
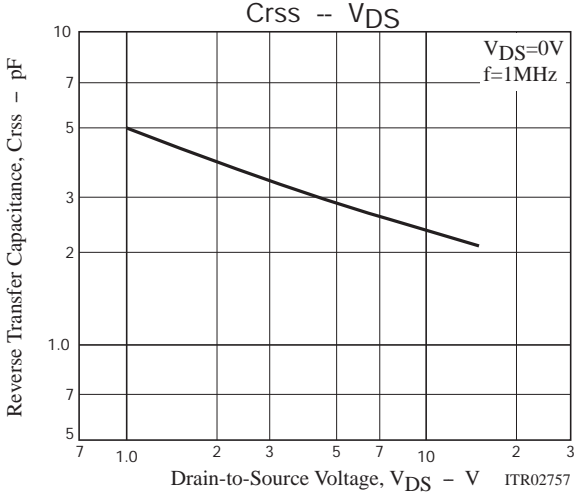
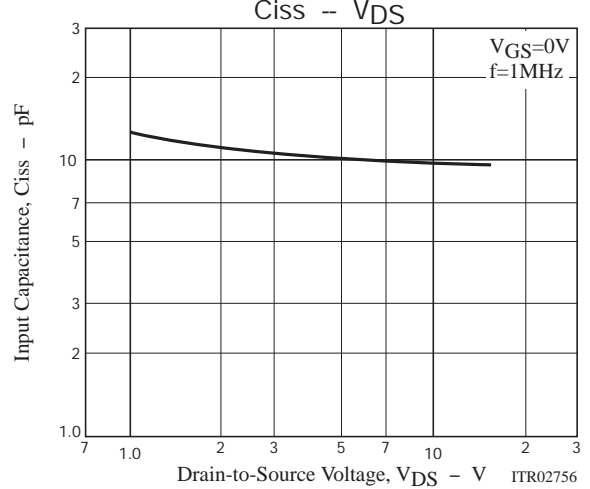
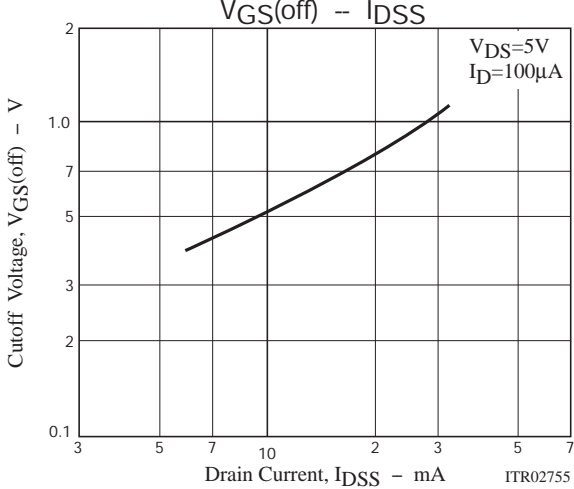
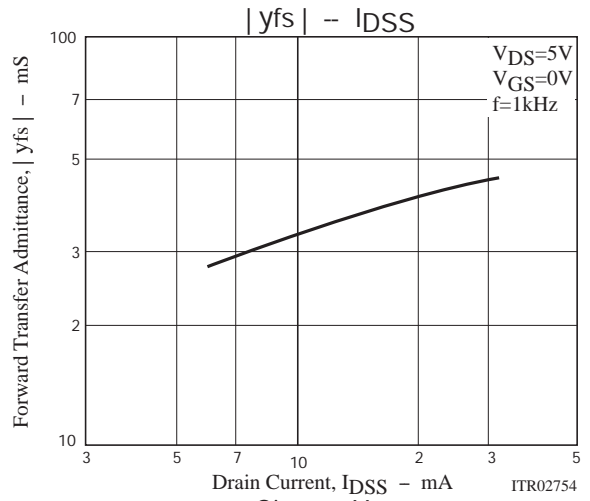
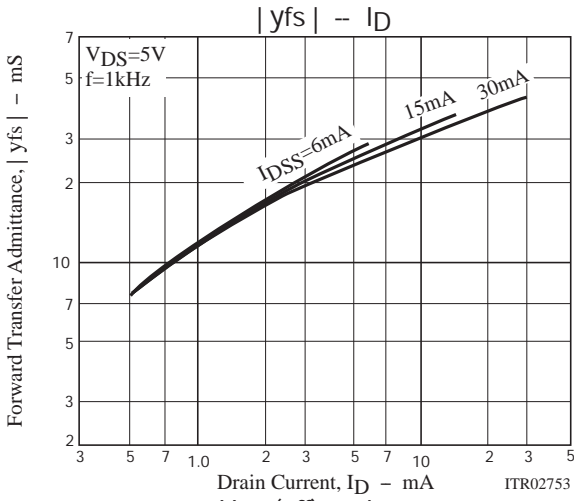
\* : The 2SK2394 is classified by IDSS as follows : (unit : mA)

Rank	5	6	7
IDSS	6.0 to 12.0	10.0 to 20.0	16.0 to 32.0

## Ordering Information

Device	Package	Shipping	memo
2SK2394-6-TB-E	CP	3,000pcs./reel	Pb Free
2SK2394-7-TB-E	CP	3,000pcs./reel	





Embossed Taping Specification

2SK2394-6-TB-E, 2SK2394-7-TB-E

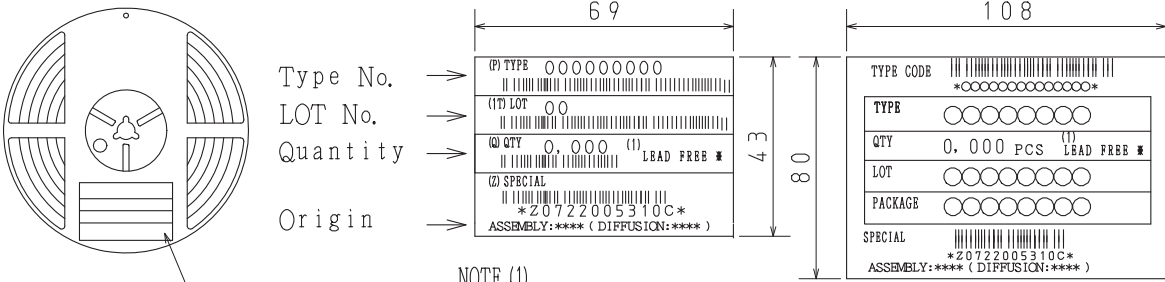
1. Packing Format

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, 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.

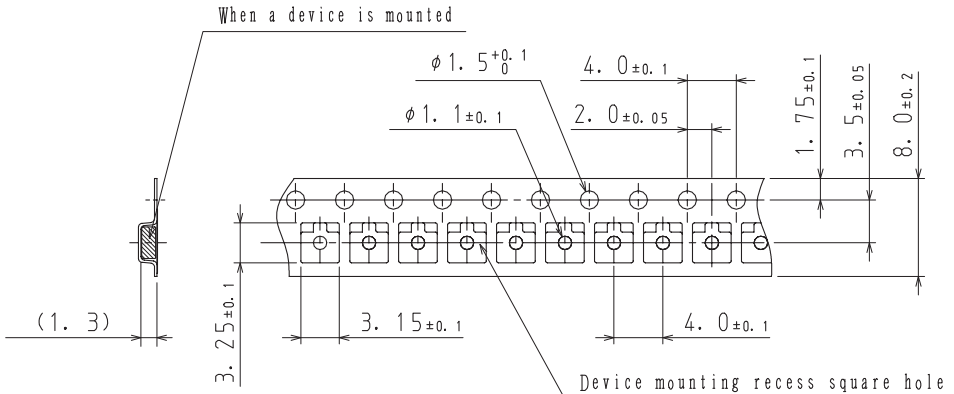


NOTE (1)  
The LEAD FREE \* description shows that the surface treatment of the terminal is lead free.

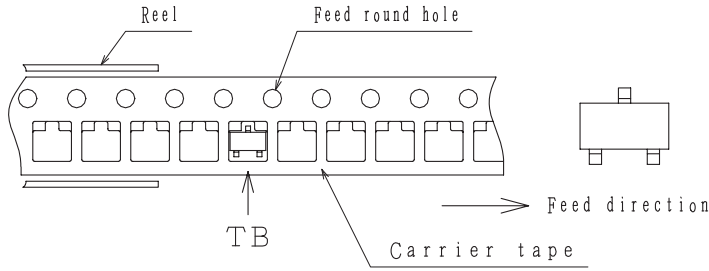
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

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

# 2SK2394

## Outline Drawing

2SK2394-6-TB-E, 2SK2394-7-TB-E



## Land Pattern Example



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