



SANYO Semiconductors

# DATA SHEET

An ON Semiconductor Company

N-Channel Junction Silicon FET

## 2SK3557 — High-Frequency Low-Noise Amplifier Applications

### Applications

- AM tuner RF amplification
- Low noise amplifier

### Features

- Large  $|y_{fs}|$
- Small  $C_{iss}$
- Ultrasmall-sized package permitting 2SK3557-applied sets to be made smaller and slimer
- Ultralow noise figure

### Specifications

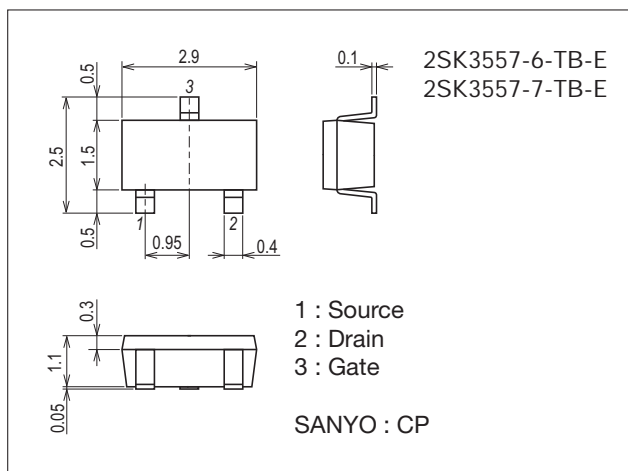
Absolute Maximum Ratings at  $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	$V_{DSX}$		15	V
Gate-to-Drain Voltage	$V_{GDS}$		-15	V
Gate Current	$I_G$		10	mA
Drain Current	$I_D$		50	mA
Allowable Power Dissipation	$P_D$		200	mW
Junction Temperature	$T_j$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

### Package Dimensions

unit : mm (typ)

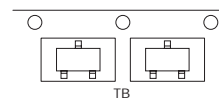
7013A-011



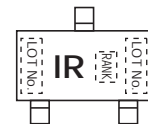
### Product & Package Information

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

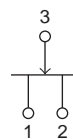
### Packing Type: TL



### Marking



### Electrical Connection



# 2SK3557

## Electrical Characteristics at Ta=25°C

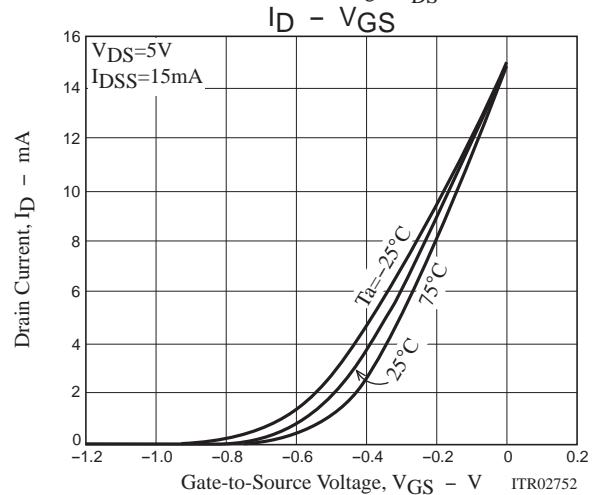
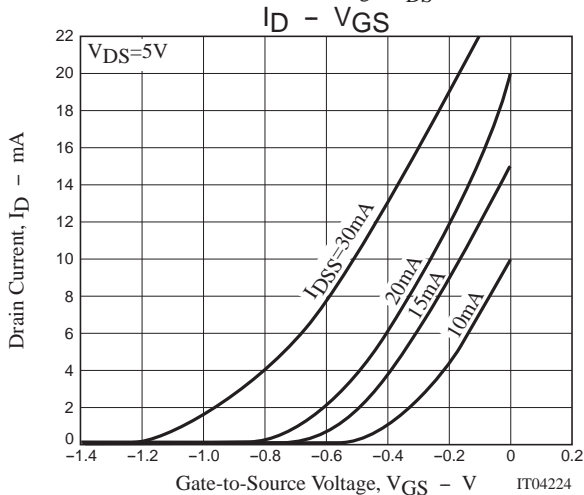
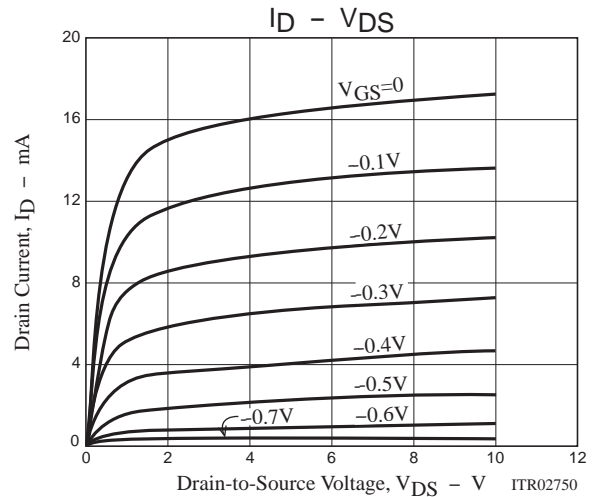
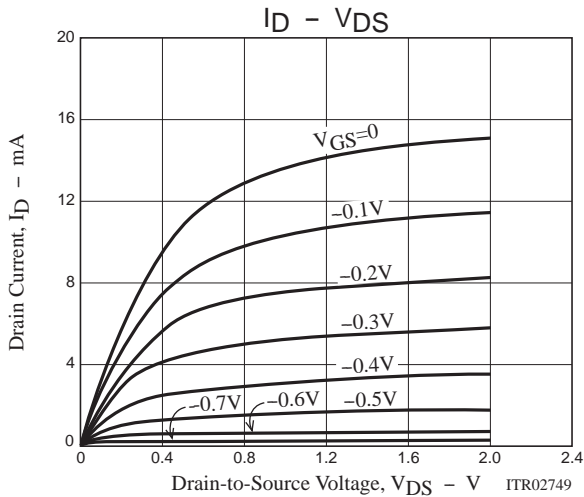
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	V(BR)GDS	IG=-10μA, VDS=0V	-15			V
Gate Cutoff Current	IGSS	VGS=-10V, VDS=0V			-1.0	nA
Cutoff Voltage	VGS(off)	VDS=5V, ID=100μA	-0.3	-0.7	-1.5	V
Drain Current	IDSS	VDS=5V, VGS=0V	10*		32*	mA
Forward Transfer Admittance	yfs	VDS=5V, VGS=0V, f=1kHz	24	35		mS
Input Capacitance	Ciss	VDS=5V, VGS=0V, f=1MHz		10.0		pF
Reverse Transfer Capacitance	Crss	VDS=5V, VGS=0V, f=1MHz		2.9		pF
Noise Figure	NF	VDS=5V, Rg=1kΩ, ID=1mA, f=1kHz		1.0		dB

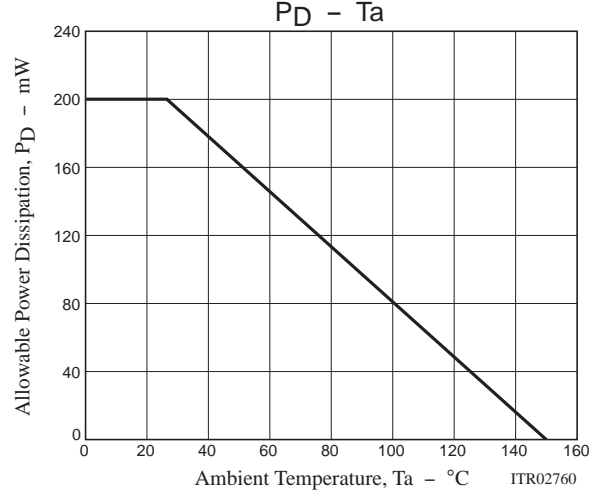
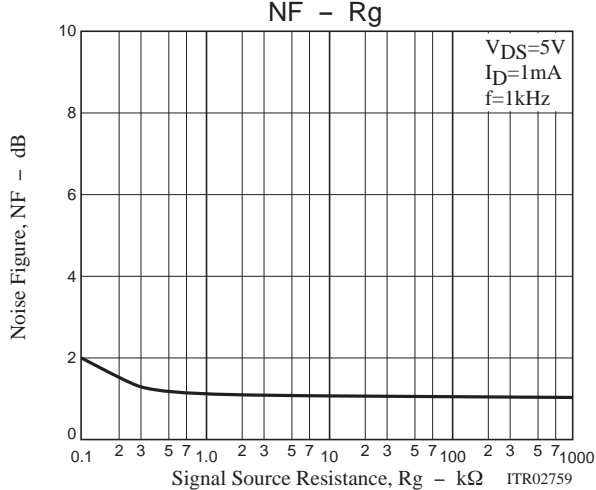
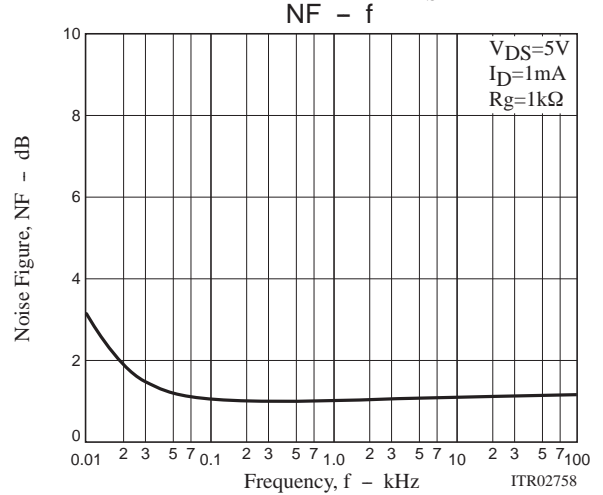
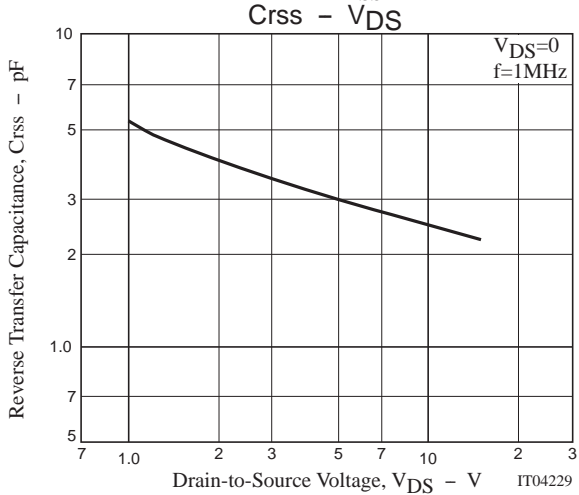
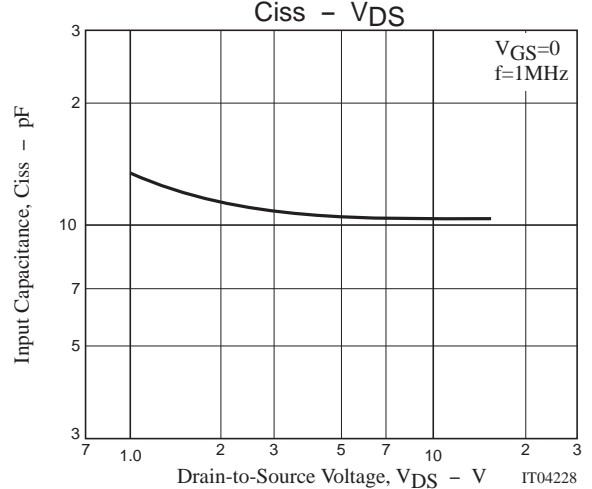
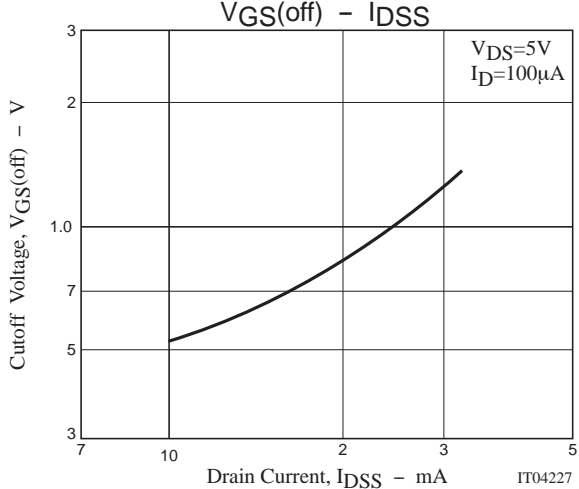
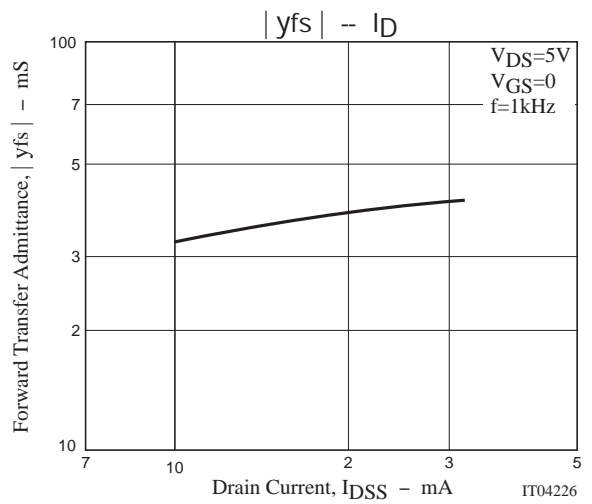
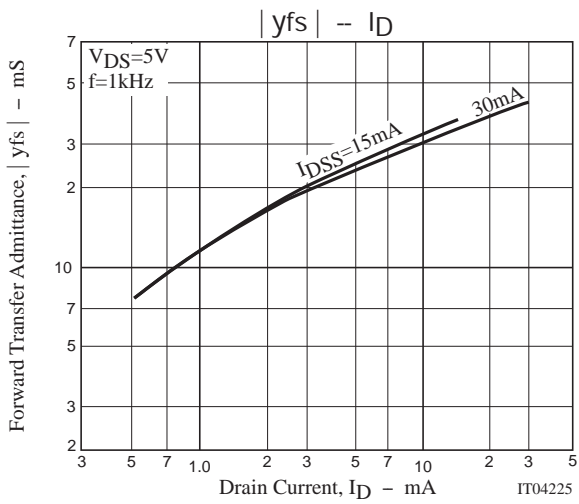
\* : The 2SK3557 is classified by IDSS as follows : (unit : mA)

Rank	6	7
IDSS	10.0 to 20.0	16.0 to 32.0

## Ordering Information

Device	Package	Shipping	memo
2SK3557-6-TB-E	CP	3,000pcs./reel	Pb Free
2SK3557-7-TB-E	CP	3,000pcs./reel	





Embossed Taping Specification

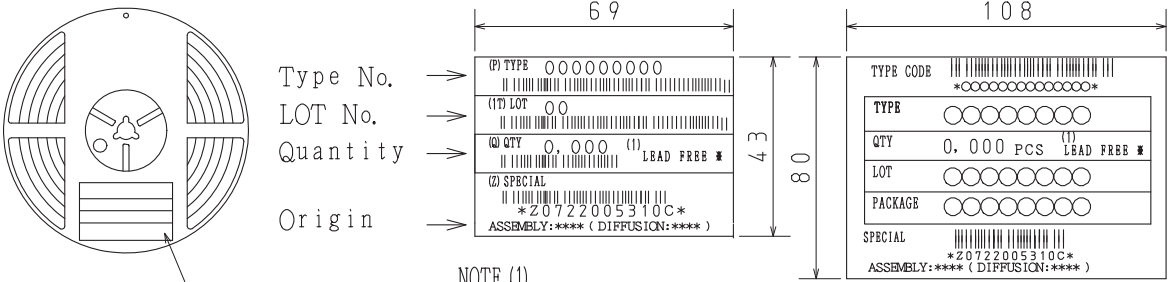
2SK3557-6-TB-E, 2SK3557-7-TB-E

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

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

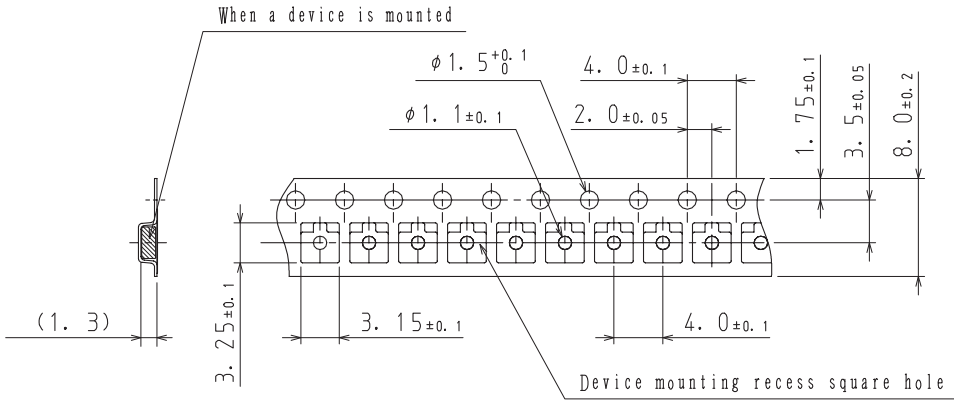


NOTE (1)  
 The LEAD FREE \* description shows that the surface treatment of the terminal is lead free.

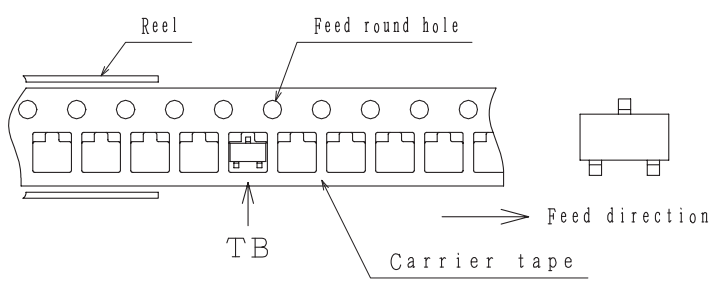
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



2-2. Device placement direction

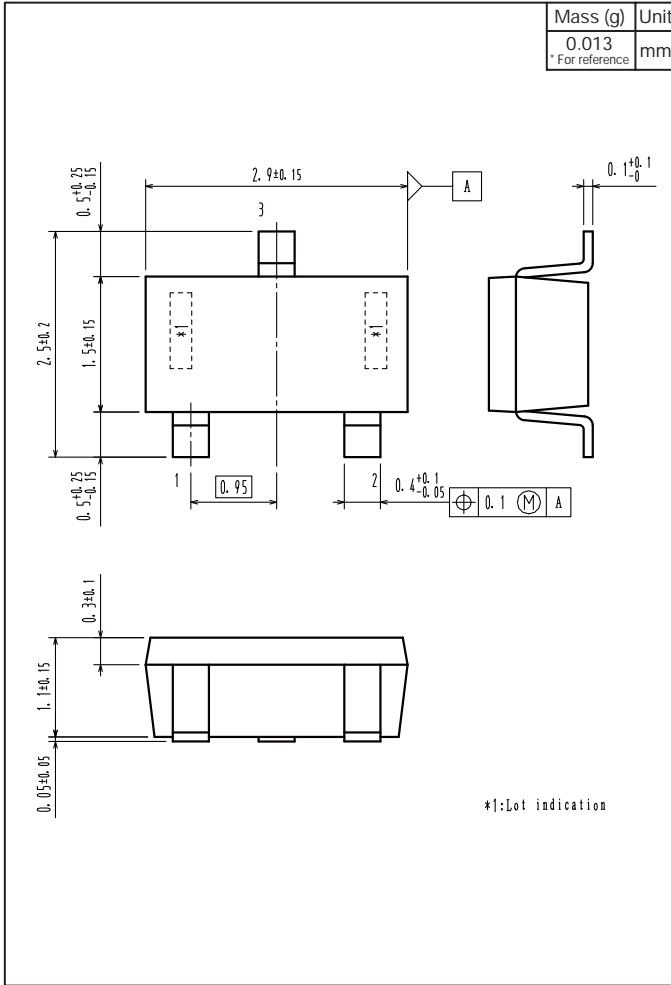


Those with one electrode terminal on the feed hole side.....TB

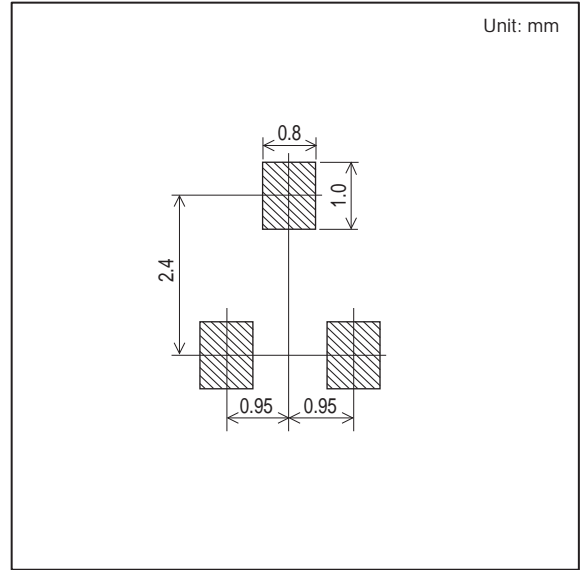
# 2SK3557

## Outline Drawing

2SK3557-6-TB-E, 2SK3557-7-TB-E



## Land Pattern Example



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