

To our customers,

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## Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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## 2SJ351, 2SJ352

### Silicon P Channel MOS FET

REJ03G0860-0200  
(Previous: ADE-208-1193)  
Rev.2.00  
Sep 07, 2005

#### Description

Low frequency power amplifier

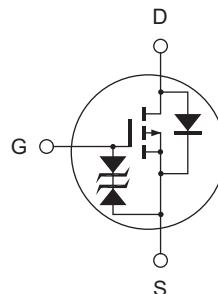
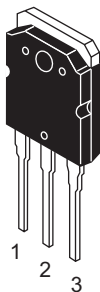
Complementary pair with 2SK2220, 2SK2221

#### Features

- High power gain
- Excellent frequency response
- High speed switching
- Wide area of safe operation
- Enhancement-mode
- Good complementary characteristics
- Equipped with gate protection diodes

#### Outline

RENESAS Package code: PRSS0004ZE-A  
(Package name: TO-3P)



1. Gate
2. Source (Flange)
3. Drain

## Absolute Maximum Ratings

(Ta = 25°C)

Item		Symbol	Value	Unit
Drain to source voltage	2SJ351	$V_{DSX}$	-180	V
	2SJ352		-200	
Gate to source voltage		$V_{GSS}$	±20	V
Drain current		$I_D$	-8	A
Body to drain diode reverse drain current		$I_{DR}$	-8	A
Channel dissipation		$P_{ch}$ <sup>Note 1</sup>	100	W
Channel temperature		$T_{ch}$	150	°C
Storage temperature		$T_{stg}$	-55 to +150	°C

Note: 1. Value at Tc = 25°C

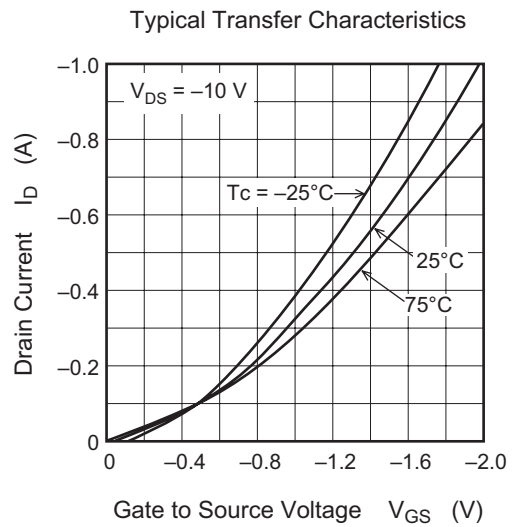
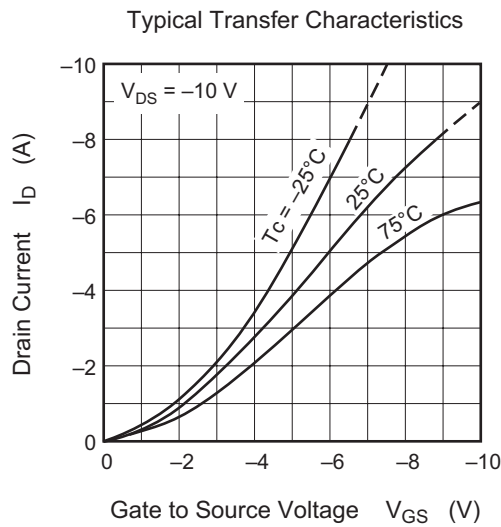
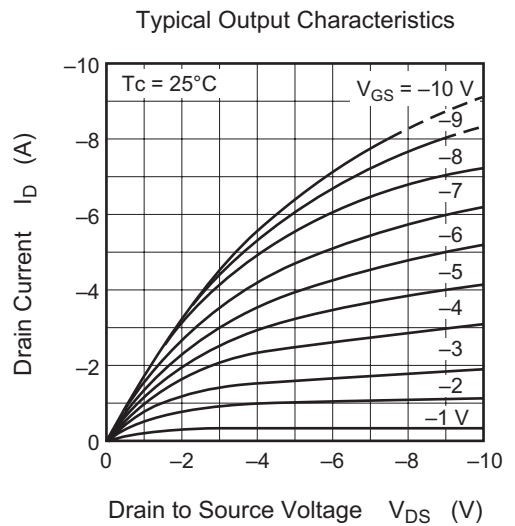
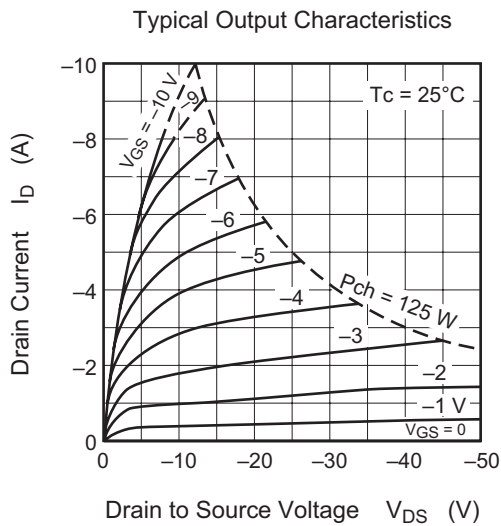
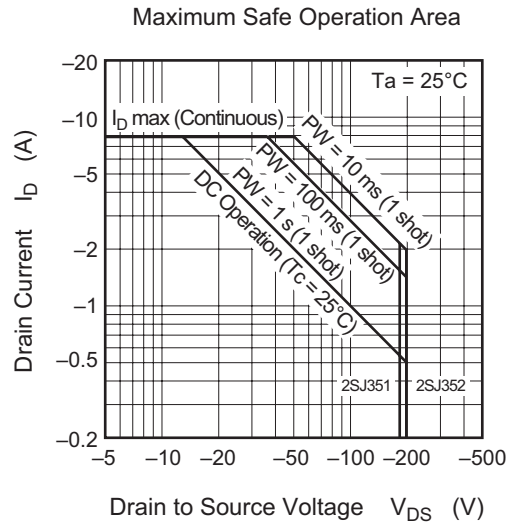
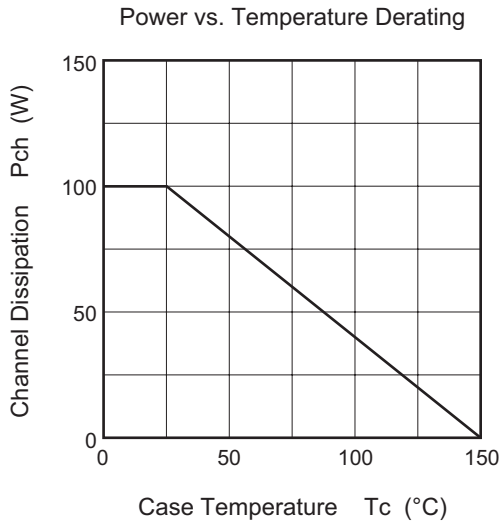
## Electrical Characteristics

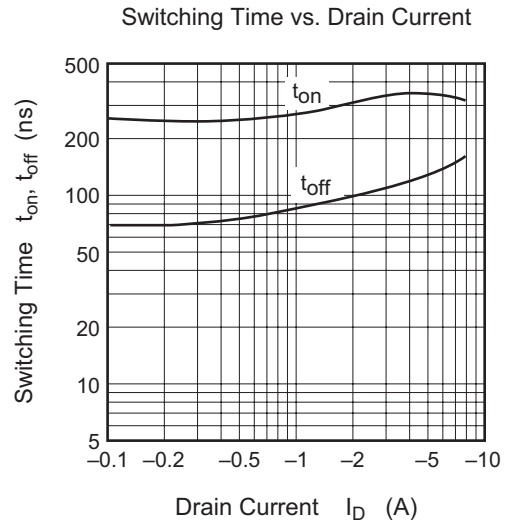
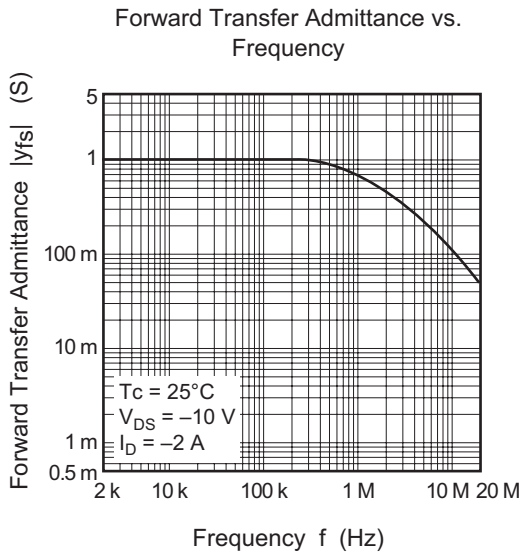
(Ta = 25°C)

Item		Symbol	Min	Typ	Max	Unit	Test Conditions
Drain to source breakdown voltage	2SJ351	$V_{(BR)DSX}$	-180	—	—	V	$I_D = -10$ mA, $V_{GS} = 10$ V
	2SJ352		-200	—	—	V	
Gate to source breakdown voltage		$V_{(BR)GSS}$	±20	—	—	V	$I_G = \pm 100$ $\mu$ A, $V_{DS} = 0$
Gate to source cutoff voltage		$V_{GS(off)}$	-0.15	—	-1.45	V	$I_D = -100$ mA, $V_{DS} = -10$ V
Drain to source saturation voltage		$V_{DS(sat)}$	—	—	-12	V	$I_D = -8$ A, $V_{GS} = 0$ <sup>Note 2</sup>
Forward transfer admittance		$ y_{fs} $	0.7	1.0	1.4	S	$I_D = -3$ A, $V_{DS} = -10$ V <sup>Note 2</sup>
Input capacitance		$C_{iss}$	—	800	—	pF	$V_{GS} = 5$ V, $V_{DS} = -10$ V, $f = 1$ MHz
Output capacitance		$C_{oss}$	—	1000	—	pF	
Reverse transfer capacitance		$C_{rss}$	—	18	—	pF	
Turn-on time		$t_{on}$	—	320	—	ns	$V_{DD} = -30$ V $I_D = -4$ A
Turn-off time		$t_{off}$	—	120	—	ns	

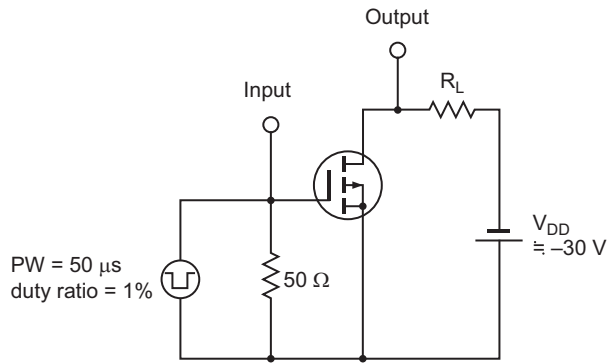
Note: 2. Pulse test

Main Characteristics

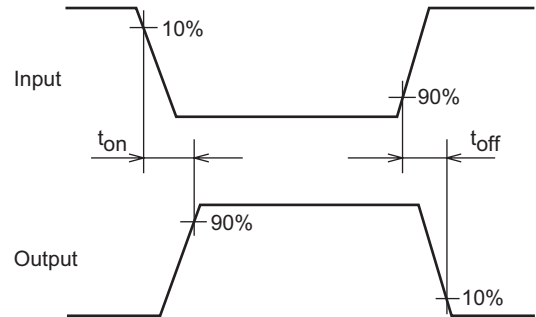




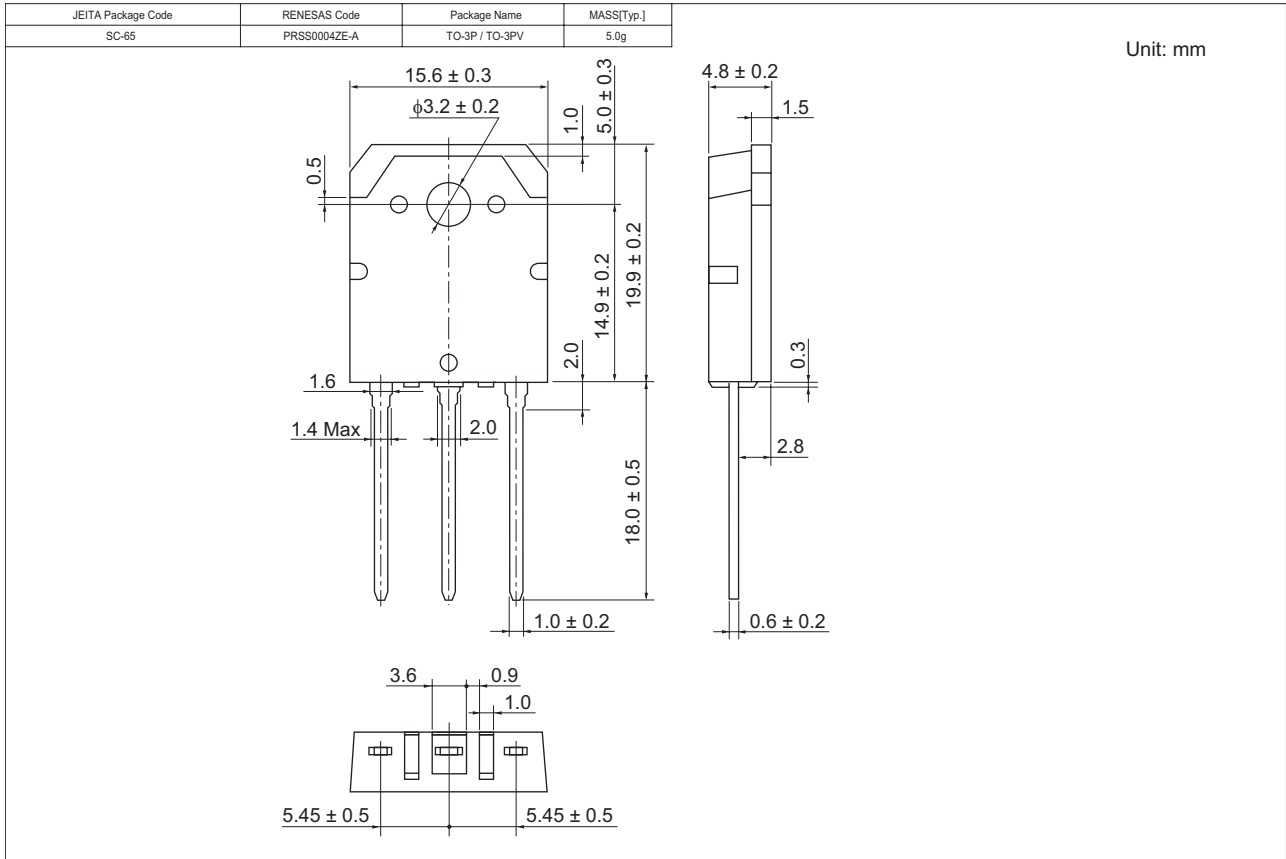
Switching Time Test Circuit



Waveform



### Package Dimensions



### Ordering Information

Part Name	Quantity	Shipping Container
2SJ351-E	360 pcs	Box (Tube)
2SJ352-E	360 pcs	Box (Tube)

Note: For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

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