2SJ351, 2SJ352

Silicon P Channel MOS FET

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

Description

Low frequency power amplifier

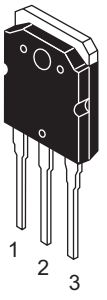
Complementary pair with 2SK2220, 2SK2221

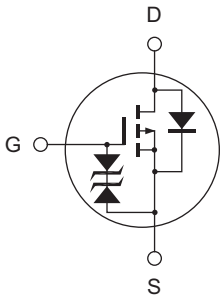
Features

- 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		Pch [Note 1]	100	W
Channel temperature		Tch	150	°C
Storage temperature		Tstg	–55 to +150	°C

Note: 1. Value at Tc = 25°C

Electrical Characteristics

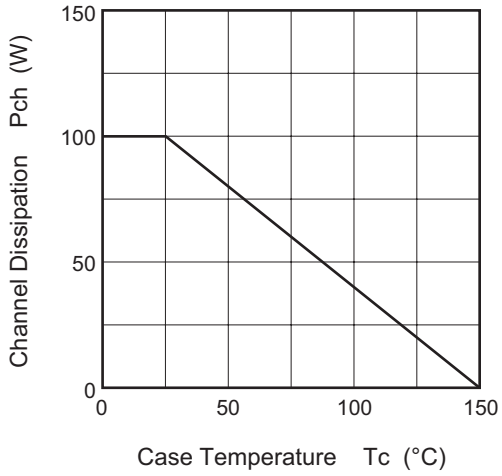
(Ta = 25°C)

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 = ±100 µA, 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 [Note 2]
Forward transfer admittance		$\|y_{fs}\|$	0.7	1.0	1.4	S	I_D = –3 A, V_{DS} = –10 V [Note 2]
Input capacitance		Ciss	—	800	—	pF	V_{GS} = 5 V, V_{DS} = –10 V, f = 1 MHz
Output capacitance		Coss	—	1000	—	pF	
Reverse transfer capacitance		Crss	—	18	—	pF	
Turn-on time		t_{on}	—	320	—	ns	V_{DD} = –30 V I_D = –4 A
Turn-off time		t_{off}	—	120	—	ns	

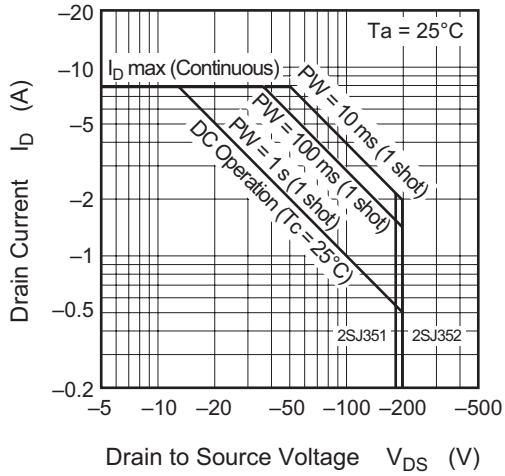
Note: 2. Pulse test

Main Characteristics

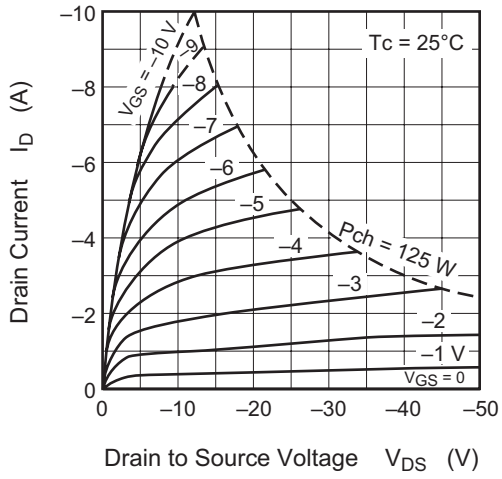
Power vs. Temperature Derating



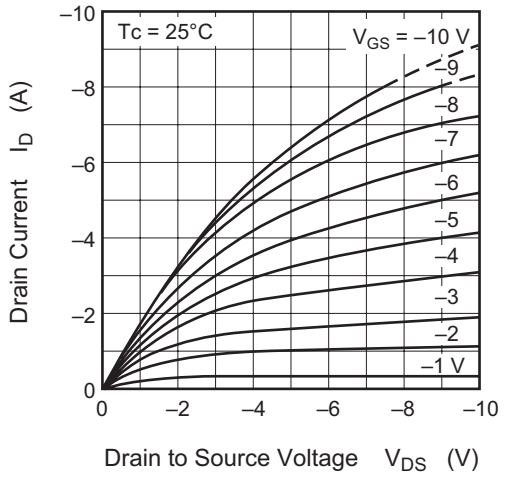
Maximum Safe Operation Area



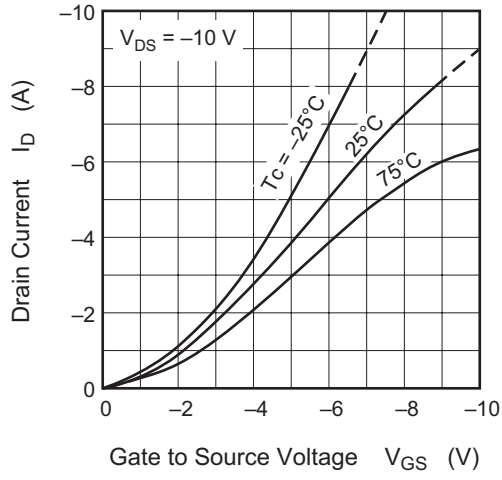
Typical Output Characteristics



Typical Output Characteristics



Typical Transfer Characteristics



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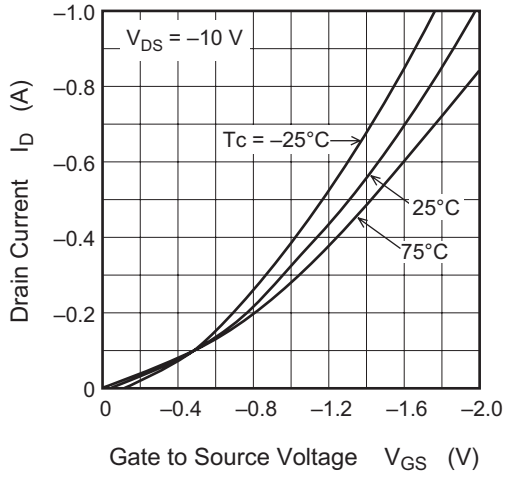
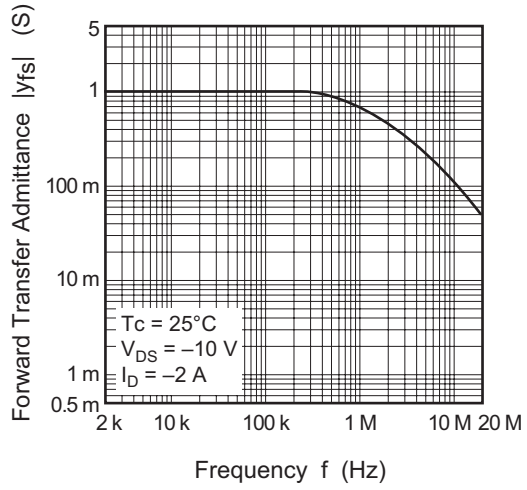
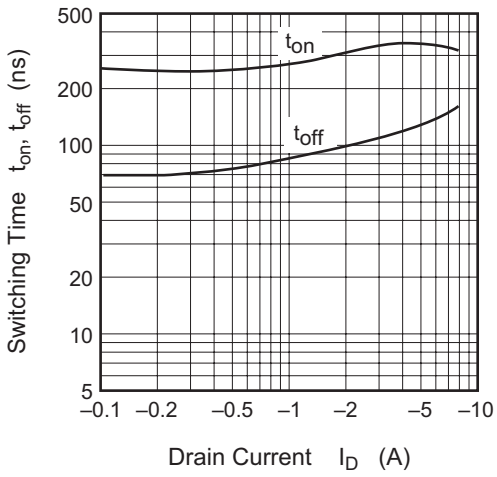


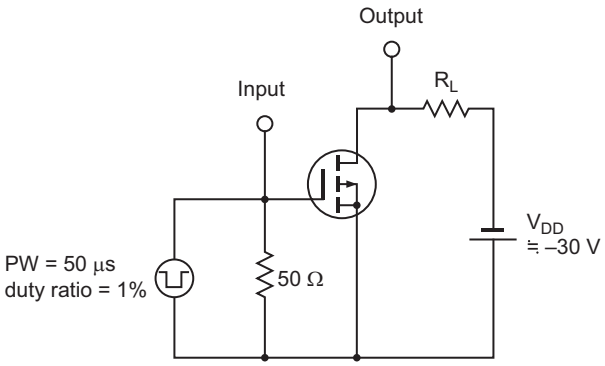
Forward Transfer Admittance vs. Frequency



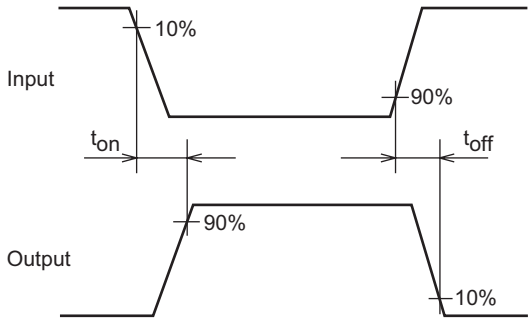
Switching Time vs. Drain Current



Switching Time Test Circuit



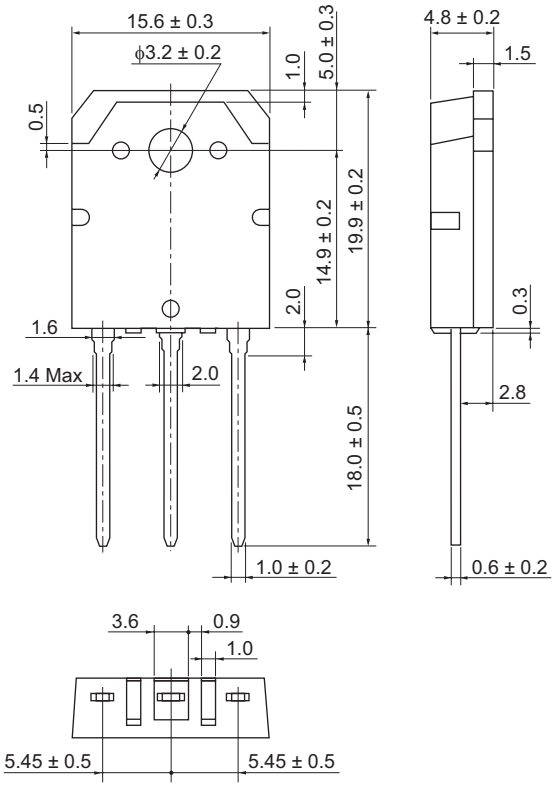
Waveform



Package Dimensions

JEITA Package Code	RENESAS Code	Package Name	MASS[Typ.]
SC-65	PRSS0004ZE-A	TO-3P / TO-3PV	5.0g

Unit: mm



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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http://www.renesas.com

Refer to "**http://www.renesas.com/en/network**" for the latest and detailed information.

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