2SJ76, 2SJ77, 2SJ78, 2SJ79

Silicon P Channel MOS FET

REJ03G0122-0200
(Previous: ADE-208-1179)
Rev.2.00
Sep 07, 2005

Description

High frequency and low frequency power amplifier, high speed power switching

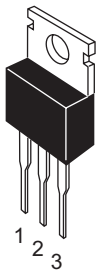
Complementary pair with 2SK213, 2SK214, 2SK215, 2SK216

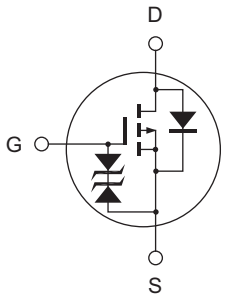
Features

- Suitable for direct mounting
- High forward transfer admittance
- Excellent frequency response
- Enhancement-mode

Outline

RENESAS Package code: PRSS0004AC-A
(Package name: TO-220AB)





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

Absolute Maximum Ratings

(Ta = 25°C)

Item		Symbol	Value	Unit
Drain to source voltage	2SJ76	V_{DSX}	–140	V
	2SJ77		–160	
	2SJ78		–180	
	2SJ79		–200	
Gate to source voltage		V_{GSS}	±15	V
Drain current		I_D	–500	mA
Body to drain diode reverse drain current		I_{DR}	–500	mA
Channel dissipation		Pch	1.75	W
		Pch Note 1	30	W
Channel temperature		Tch	150	°C
Storage temperature		Tstg	–45 to +150	°C

Note: 1. Value at Tc = 25°C

Electrical Characteristics

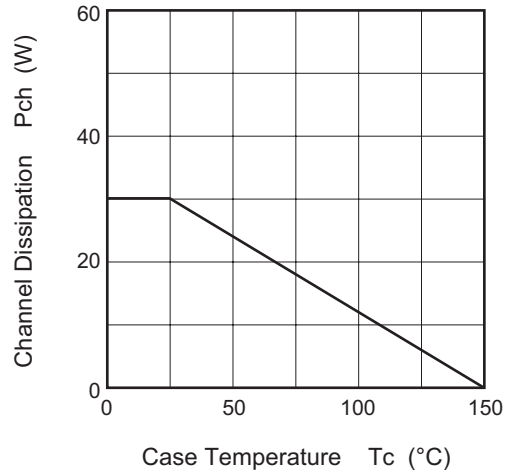
(Ta = 25°C)

Item		Symbol	Min	Typ	Max	Unit	Test Conditions
Drain to source breakdown voltage	2SJ76	$V_{(BR)\ DSX}$	–140	—	—	V	V_{GS} = 2 V, I_D = –1 mA
	2SJ77		–160	—	—	V	
	2SJ78		–180	—	—	V	
	2SJ79		–200	—	—	V	
Gate to source breakdown voltage		$V_{(BR)\ GSS}$	±15	—	—	V	I_G = ±10 µA, V_{DS} = 0
Gate to source cutoff voltage		$V_{GS\ (on)}$	–0.2	—	–1.5	V	I_D = –10 mA, V_{DS} = –10 V Note 2
Drain to source saturation voltage		$V_{DS\ (sat)}$	—	—	–2.0	V	I_D = –10 mA, V_{GS} = 0 Note 2
Forward transfer admittance		$\|y_{fs}\|$	20	35	—	mS	I_D = –10 mA, V_{DS} = –20 V Note 2
Input capacitance		Ciss	—	120	—	pF	V_{DS} = –10 V, I_D = –10 mA, f = 1 MHz
Reverse transfer capacitance		Crss	—	4.8	—	pF	

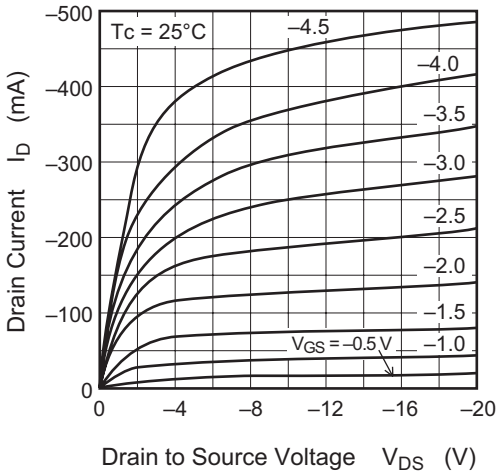
Note: 2. Pulse test

Main Characteristics

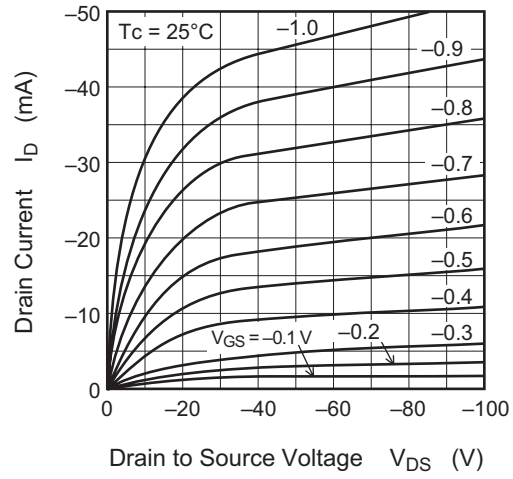
Power vs. Temperature Derating



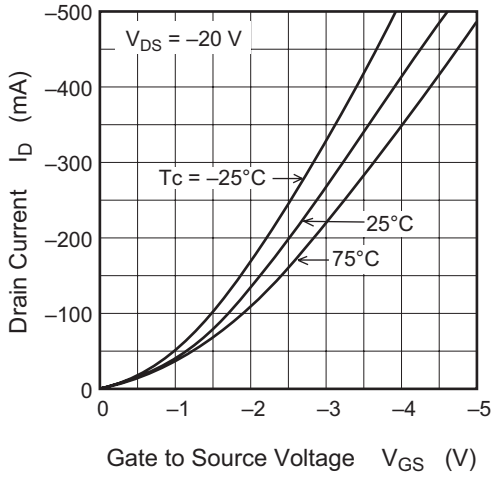
Typical Output Characteristics



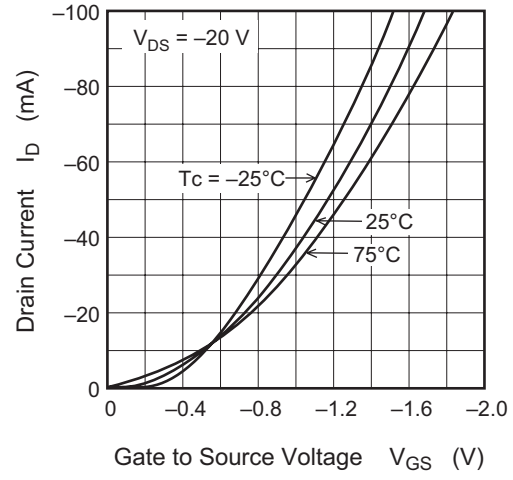
Typical Output Characteristics



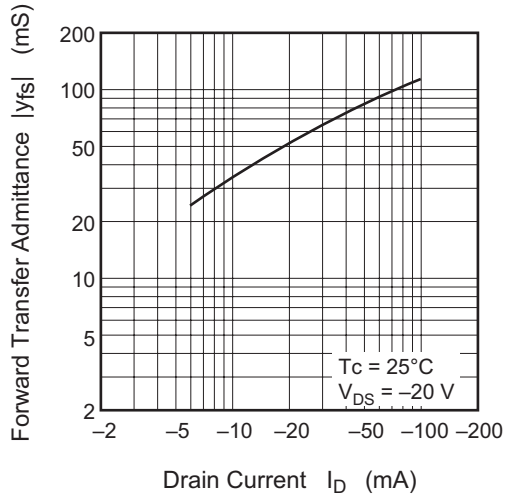
Typical Transfer Characteristics



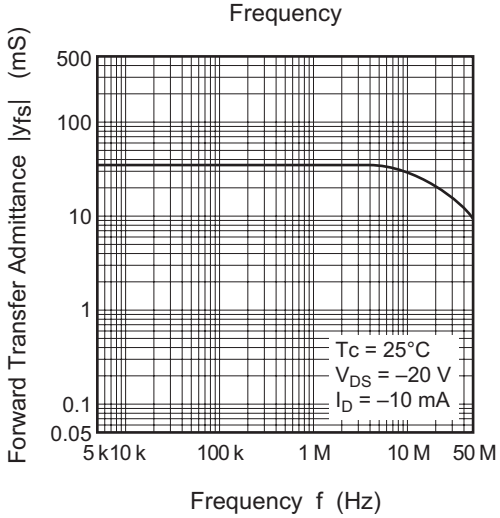
Typical Transfer Characteristics



Forward Transfer Admittance vs. Drain Current



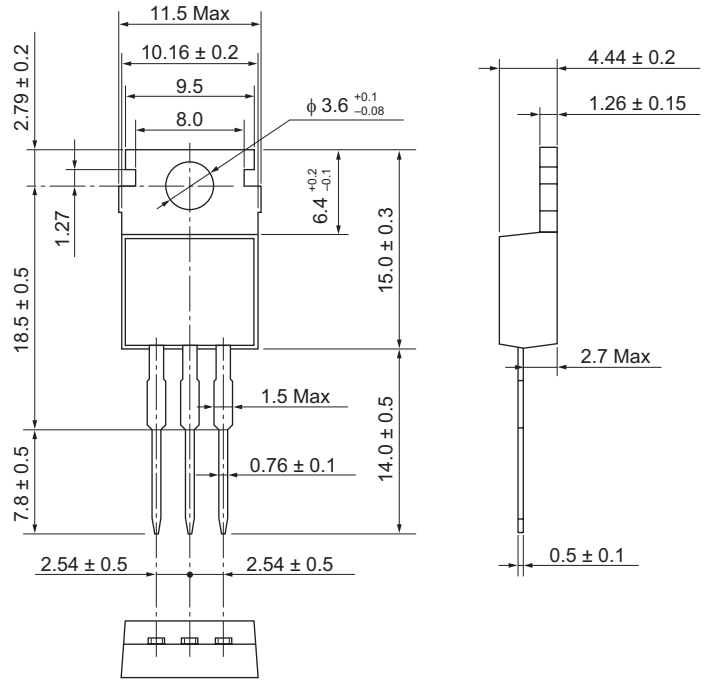
Forward Transfer Admittance vs. Frequency



Package Dimensions

JEITA Package Code	RENESAS Code	Package Name	MASS[Typ.]
SC-46	PRSS0004AC-A	TO-220AB / TO-220ABV	1.8g

Unit: mm



Ordering Information

Part Name	Quantity	Shipping Container
2SJ76-E	500 pcs	Box (Sack)
2SJ77-E	500 pcs	Box (Sack)
2SJ78-E	500 pcs	Box (Sack)
2SJ79-E	500 pcs	Box (Sack)

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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