

2SJ76, 2SJ77, 2SJ78, 2SJ79

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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

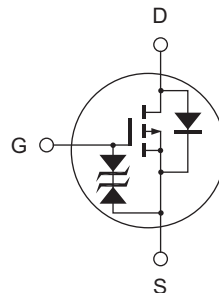
Complementary pair with 2SK213, 2SK214, 2SK215, 2SK216

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)

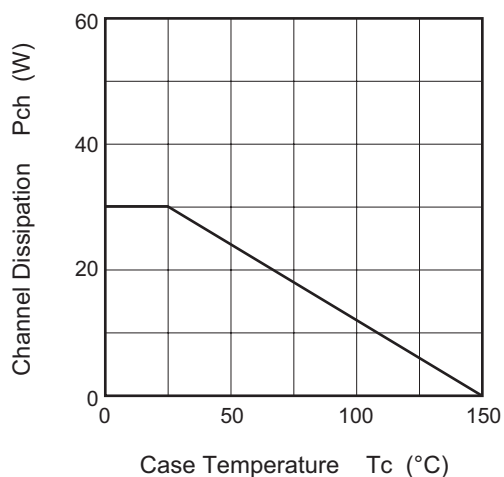
Item		Symbol	Min	Typ	Max	Unit	Test Conditions
Drain to source breakdown voltage	2SJ76	$V_{(BR)DSX}$	-140	—	—	V	$V_{GS} = 2\text{ V}, I_D = -1\text{ mA}$
	2SJ77		-160	—	—	V	
	2SJ78		-180	—	—	V	
	2SJ79		-200	—	—	V	
Gate to source breakdown voltage		$V_{(BR)GSS}$	±15	—	—	V	$I_G = \pm 10\text{ }\mu\text{A},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

Note: 2. Pulse test

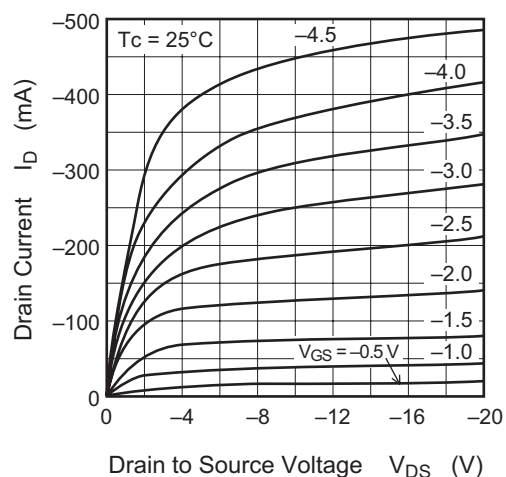
Main Characteristics

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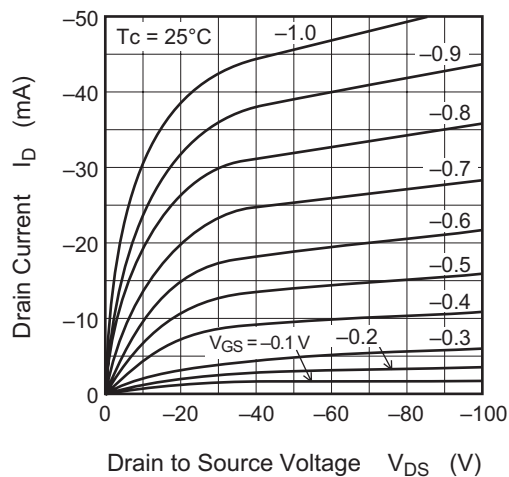
Power vs. Temperature Derating



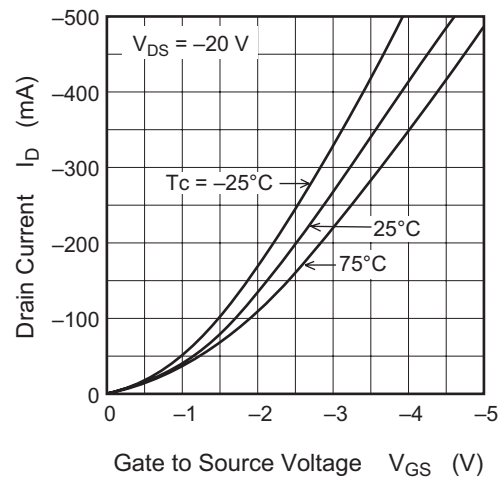
Typical Output Characteristics



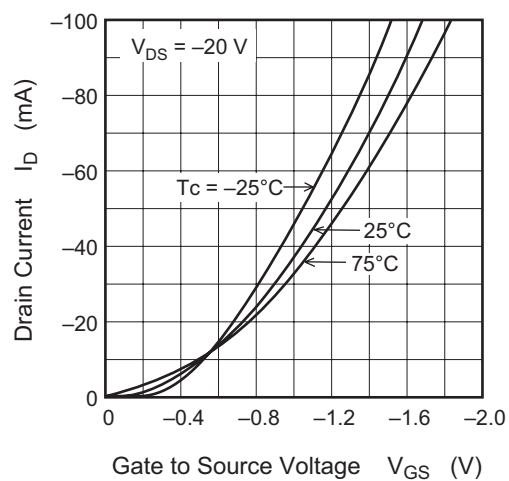
Typical Output Characteristics



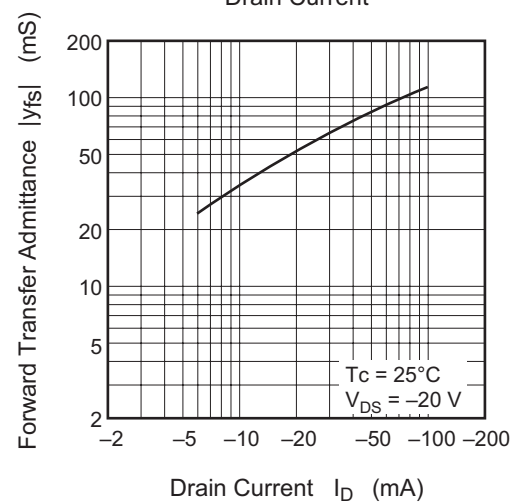
Typical Transfer Characteristics



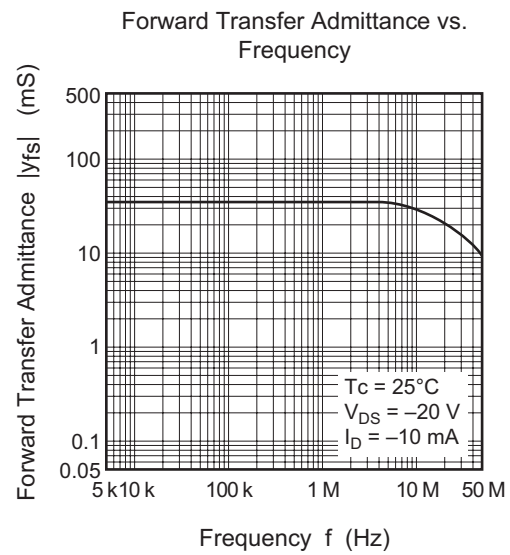
Typical Transfer Characteristics



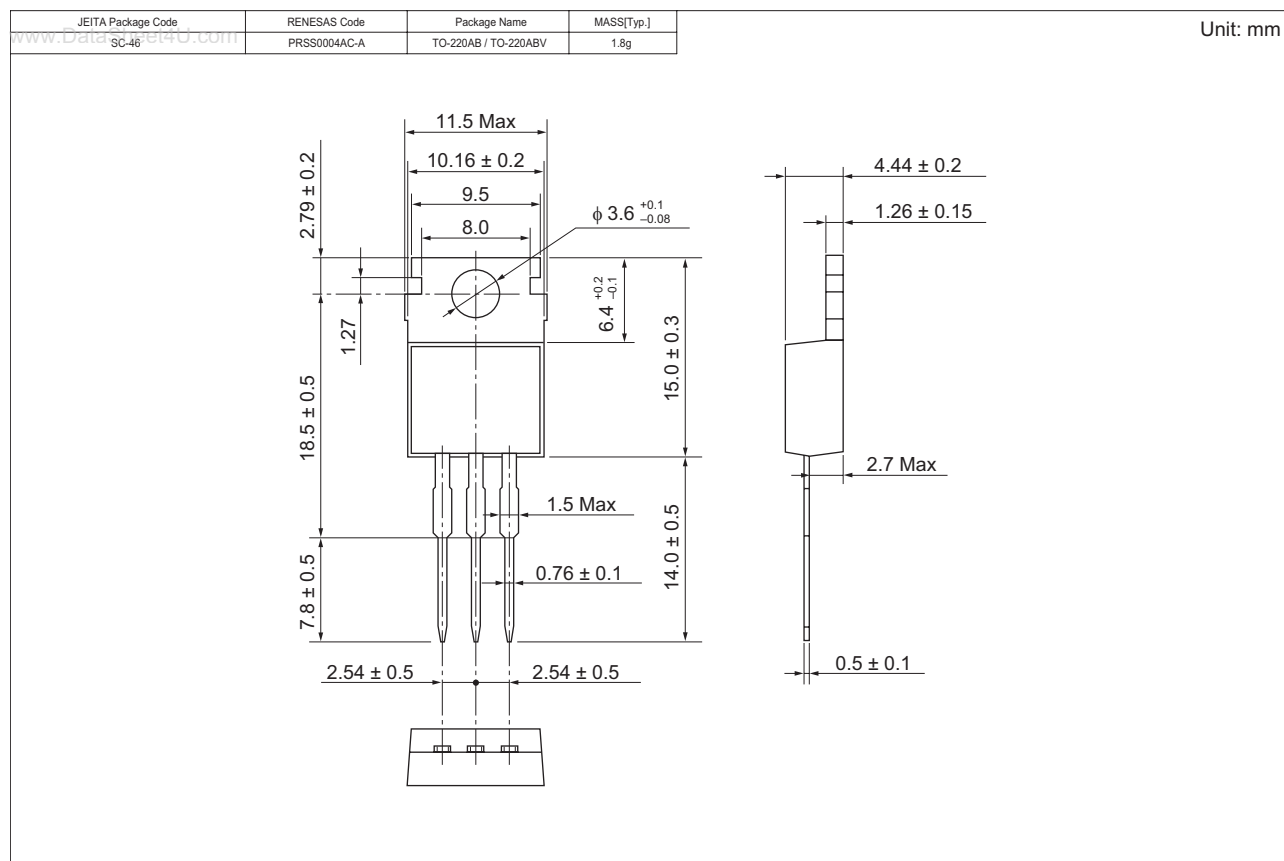
Forward Transfer Admittance vs. Drain Current



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Package Dimensions



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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