

Hitachi Electronic Components Data book For Discrete Products 1st Edition March 97, Windows and Macintosh Version

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- Hitachi Small Signal Transistor
- Hitachi Bipolar Power Transistor
- Hitachi Power MOSFET
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HITACHI

2SJ76,2SJ77, 2SJ78,2SJ79

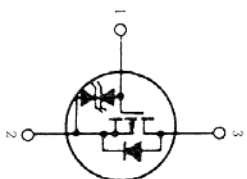
SILICON P CHANNEL MOS FET

HIGH FREQUENCY AND LOW FREQUENCY POWER AMPLIFIER,
HIGH SPEED POWER SWITCHING

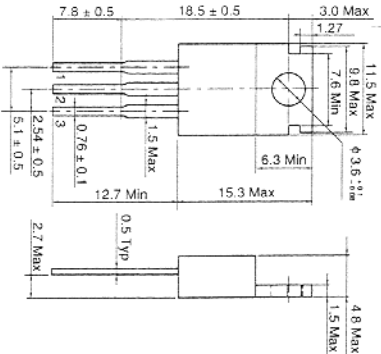
Complementary Pair with 2SK213, 2SK214, 2SK215, 2SK216

■ FEATURES

- Suitable for Direct Mounting.
- High Forward Transfer Admittance.
- Excellent Frequency Response.
- Enhancement-Mode.



1. Gate
2. Source
(Flange)
3. Drain
(Dimensions in mm)

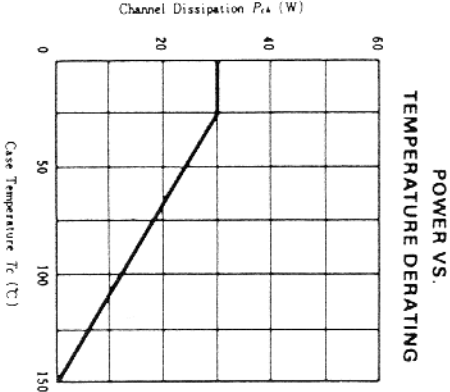


(JEDEC TO-220AB)

■ ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$)

Item	Symbol	Ratings			Unit	
		2SJ76	2SJ77	2SJ78		2SJ79
Drain-Source Voltage	V_{DS}	-140	-160	-180	-200	V
Gate-Source Voltage	V_{GS}	± 15			V	
Drain Current	I_D	-500			mA	
Body-Drain Diode Reverse Drain Current	I_{OS}	-500			mA	
Channel Dissipation	P_A	1.75			W	
	P_{A^*}	30			W	
Channel Temperature	T_A	150			°C	
Storage Temperature	T_w	-45 ~ +150			°C	

* Value at $T_a=25^{\circ}\text{C}$



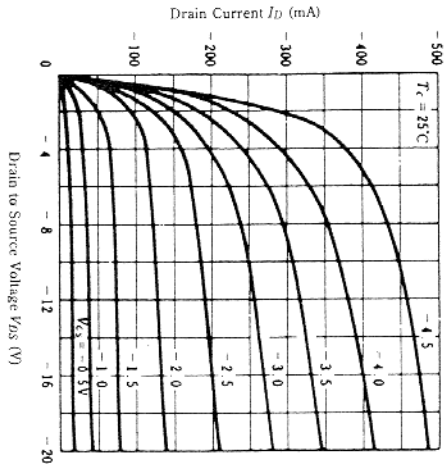
■ ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
			-140	-	-	V
Drain-Source Breakdown Voltage	$V_{ds(max)}$	$V_{gs}=2\text{V}, I_D=-1\text{mA}$	-160	-	-	V
			-180	-	-	V
			-200	-	-	V
Gate-Source Breakdown Voltage	V_{gss}	$I_D=\pm 10\mu\text{A}, V_{ds}=0$	± 15	-	-	V
Gate-Source Voltage	$V_{gs(on)}$	$I_D=-10\text{mA}, V_{ds}=-10\text{V}^*$	-0.2	-	-1.5	V
Drain-Source Saturation Voltage	$V_{ds(sat)}$	$I_D=-10\text{mA}, V_{gs}=0^*$	-	-	-2.0	V
Forward Transfer Admittance	$ y_{fs} $	$I_D=-10\text{mA}, V_{gs}=-20\text{V}^*$	20	35	-	mS
Input Capacitance	C_{in}	$V_{gs}=-10\text{V}, I_D=-10\text{mA}, f=1\text{MHz}$	-	120	-	pF
Reverse Transfer Capacitance	C_{tr}		-	4.8	-	pF

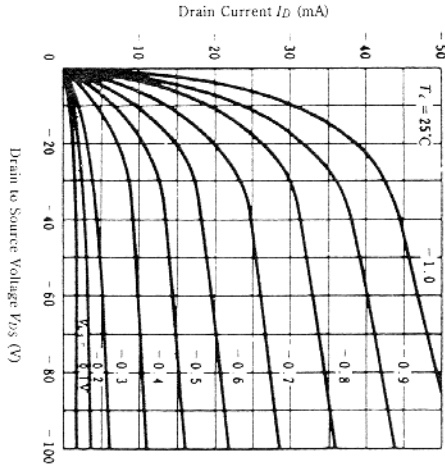
* Pulse Test

2SJ76,2SJ77,2SJ78,2SJ79

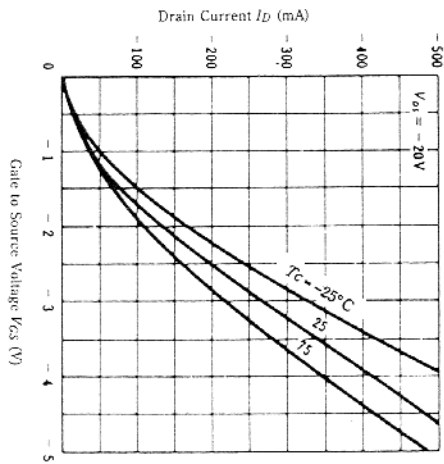
TYPICAL OUTPUT CHARACTERISTICS



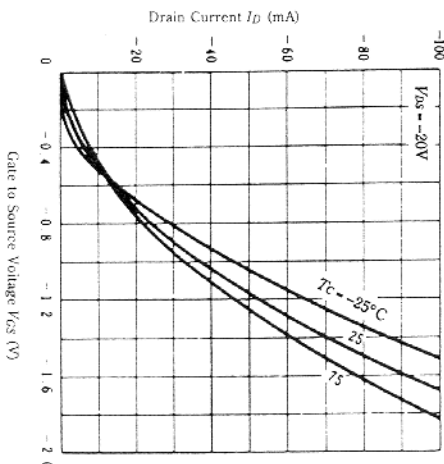
TYPICAL OUTPUT CHARACTERISTICS



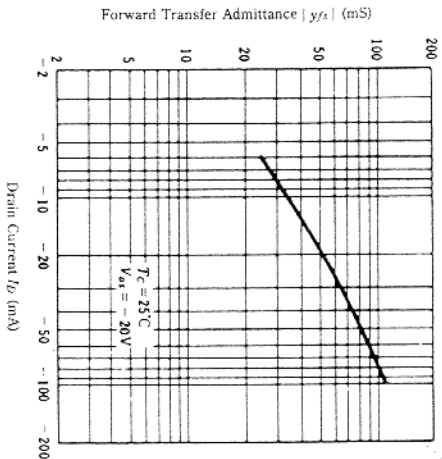
TYPICAL TRANSFER CHARACTERISTICS



TYPICAL TRANSFER CHARACTERISTICS



FORWARD TRANSFER ADMITTANCE
VS. DRAIN CURRENT



FORWARD TRANSFER ADMITTANCE
VS. FREQUENCY

