

# P-Channel MOSFET Transistor

## **2SJ77 / J77**

160V / 0.5A

# DATASHEET

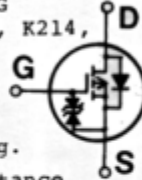
OEM – Hitachi

Source: Hitachi Databook Power Mosfet Data 4/83

# 2SJ76, 2SJ77, 2SJ78, 2SJ79

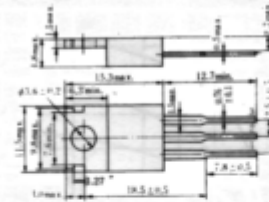
## SILICON P-CHANNEL MOS FET

HIGH FREQUENCY AND LOW FREQUENCY POWER AMPLIFIER, HIGH SPEED SWITCHING  
Complementary Pair with 2SK213, K214, K215, K216



**Features;**

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



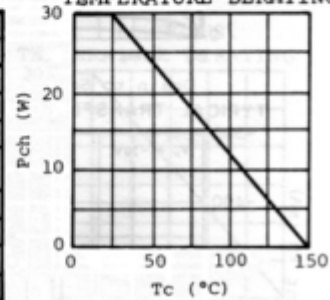
(Dimensions in mm)  
**(JEDEC TO-220AB)**

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

**■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)**

| Item                                   | Symbol    | Ratings    |      |      |      | Unit |
|--|-----------|------------|------|------|------|------|
|  |           | J76        | J77  | J78  | J79  |      |
| Drain-Source Voltage                   | $V_{DSX}$ | -140       | -160 | -180 | -200 | V    |
| Gate-Source Voltage                    | $V_{GSS}$ | ±15        |      |      |      | V    |
| Drain Current                          | $I_D$     | -500       |      |      |      | mA   |
| Body-Drain Diode Reverse Drain Current | $I_{DR}$  | -500       |      |      |      | mA   |
| Channel Dissipation                    | Pch       | 1.75       |      |      |      | W    |
|  | Pch*      | 30         |      |      |      | W    |
| Channel Temperature                    | Tch       | 150        |      |      |      | °C   |
| Storage Temperature                    | Tstg      | -45 ~ +150 |      |      |      | °C   |

**POWER VS. TEMPERATURE DERATING**



\*Value at Tc=25°C

**■ ELECTRICAL CHARACTERISTICS (Ta=25°C)**

| Item                            | Symbol        | Test Condition                   | min. | typ. | max. | Unit |
|---------------------------------|---------------|----------------------------------|------|------|------|------|
| Drain-Source Breakdown Voltage  | J76           | $V_{GS}=2V, I_D=-1mA$            | -140 | -    | -    | V    |
|                                 | J77           |                                  | -160 | -    | -    | V    |
|                                 | J78           |                                  | -180 | -    | -    | V    |
|                                 | J79           |                                  | -200 | -    | -    | V    |
| Gate-Source Breakdown Voltage   | $V_{(BR)GSS}$ | $I_G=\pm 10\mu A, V_{DS}=0$      | ±15  | -    | -    | V    |
| Gate-Source Voltage             | $V_{GS(on)}$  | $I_D=-10mA, V_{DS}=-10V^*$       | -0.2 | -    | -1.5 | V    |
| Drain-Source Saturation Voltage | $V_{DS(sat)}$ | $I_D=-10mA, V_{GD}=0^*$          | -    | -    | -2.0 | V    |
| Forward Transfer Admittance     | $ Y_{fs} $    | $I_D=-10mA, V_{DS}=-20V^*$       | -    | 35   | -    | mS   |
| Input Capacitance               | Ciss          | $V_{DS}=-10V, I_D=-10mA, f=1MHz$ | -    | 120  | -    | pF   |
| Reverse Transfer Capacitance    | Crss          | $f=1MHz$                         | -    | 4.8  | -    | pF   |

\*Pulse Test

2SJ76,2SJ77,2SJ78,2SJ79

