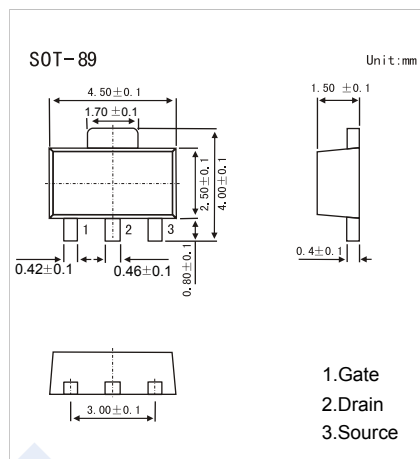


## P-Channel MOSFET

### 2SJ288

#### ■ Features

- $V_{DS} (V) = -60V$
- $I_D = -0.5 A$
- $R_{DS(ON)} < 3 \Omega$  ( $V_{GS} = -10V$ )
- $R_{DS(ON)} < 4 \Omega$  ( $V_{GS} = -4V$ )



#### ■ Absolute Maximum Ratings $T_a = 25^\circ C$

| Parameter                            | Symbol    | Rating     | Unit       |
|--------------------------------------|-----------|------------|------------|
| Drain-Source Voltage                 | $V_{DS}$  | -60        | V          |
| Gate-Source Voltage                  | $V_{GS}$  | $\pm 15$   |            |
| Continuous Drain Current             | $I_D$     | -0.5       | A          |
| Pulsed Drain Current (Note.1)        | $I_{DM}$  | -2         |            |
| Power Dissipation $T_c = 25^\circ C$ | $P_D$     | 3.5        | W          |
|                                      |           | 1.3        |            |
| Junction Temperature                 | $T_J$     | 150        | $^\circ C$ |
| Junction Storage Temperature Range   | $T_{stg}$ | -55 to 150 |            |

Note.1:  $PW \leq 10 \mu s$ , duty cycle  $\leq 1\%$

#### ■ Electrical Characteristics $T_a = 25^\circ C$

| Parameter                         | Symbol        | Test Conditions                        | Min | Typ | Max      | Unit     |
|-----------------------------------|---------------|----------------------------------------|-----|-----|----------|----------|
| Drain-Source Breakdown Voltage    | $V_{DSS}$     | $I_D = -1mA, V_{GS} = 0V$              | -60 |     |          | V        |
| Zero Gate Voltage Drain Current   | $I_{DSS}$     | $V_{DS} = -60V, V_{GS} = 0V$           |     |     | -100     | $\mu A$  |
| Gate-Body leakage current         | $I_{GSS}$     | $V_{DS} = 0V, V_{GS} = \pm 12V$        |     |     | $\pm 10$ | $\mu A$  |
| Gate to Source Cutoff Voltage     | $V_{GS(off)}$ | $V_{GS} = -10V, I_D = -1mA$            | -1  |     | -2       | V        |
| Static Drain-Source On-Resistance | $R_{DS(on)}$  | $V_{GS} = -10V, I_D = -250mA$          |     |     | 3        | $\Omega$ |
|                                   |               | $V_{GS} = -4V, I_D = -250mA$           |     |     | 4        |          |
| Forward Transconductance          | $g_{FS}$      | $V_{DS} = -10V, I_D = -250mA$          | 240 | 400 |          | mS       |
| Input Capacitance                 | $C_{iss}$     | $V_{GS} = 0V, V_{DS} = -20V, f = 1MHz$ |     | 45  |          | pF       |
| Output Capacitance                | $C_{oss}$     |                                        |     | 20  |          |          |
| Reverse Transfer Capacitance      | $C_{rss}$     |                                        |     | 5   |          |          |
| Turn-On DelayTime                 | $t_{d(on)}$   | See Specified Test circuit             |     | 7   |          | ns       |
| Turn-On Rise Time                 | $t_r$         |                                        |     | 10  |          |          |
| Turn-Off DelayTime                | $t_{d(off)}$  |                                        |     | 35  |          |          |
| Turn-Off Fall Time                | $t_f$         |                                        |     | 20  |          |          |
| Diode Forward Voltage             | $V_{SD}$      | $I_S = -0.5A, V_{GS} = 0V$             |     | -1  |          | V        |

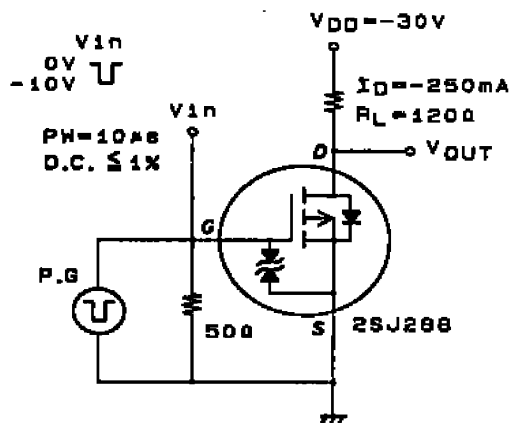
#### ■ Marking

|         |    |
|---------|----|
| Marking | JE |
|---------|----|

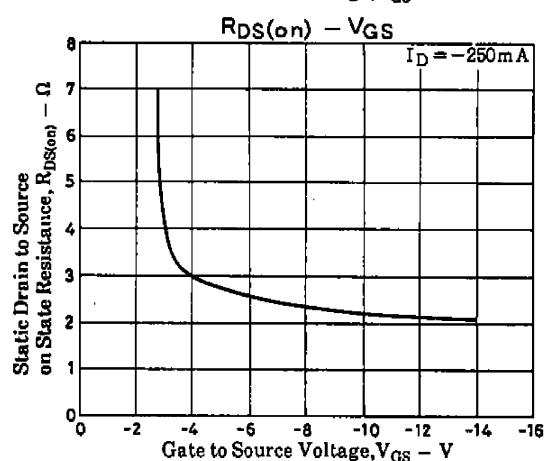
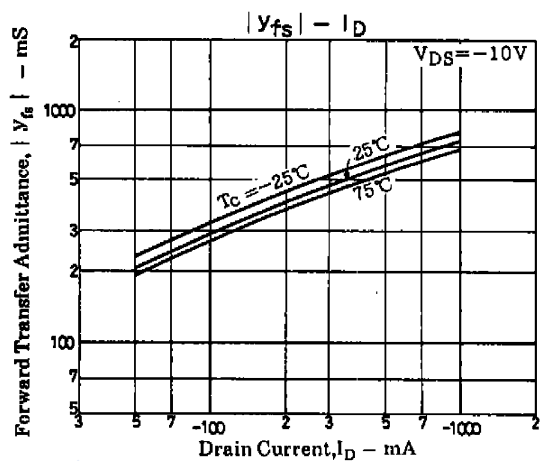
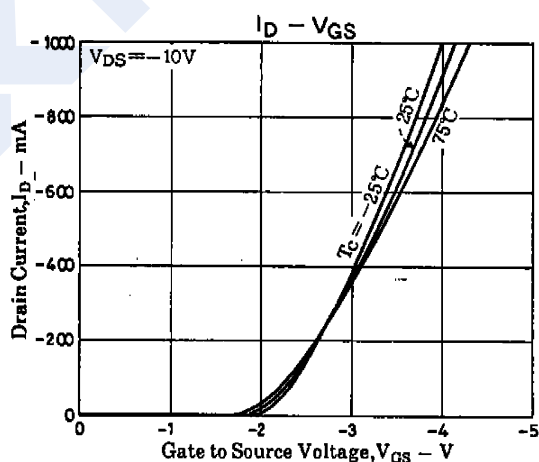
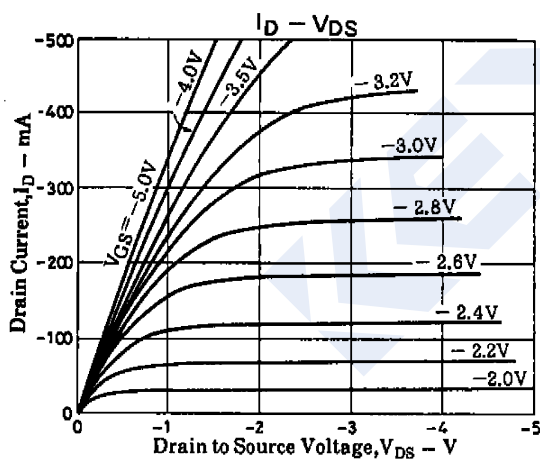
## P-Channel MOSFET

2SJ288

## Switching Time Test Circuit



## ■ Typical Characteristics



## P-Channel MOSFET

## 2SJ288

## ■ Typical Characteristics

