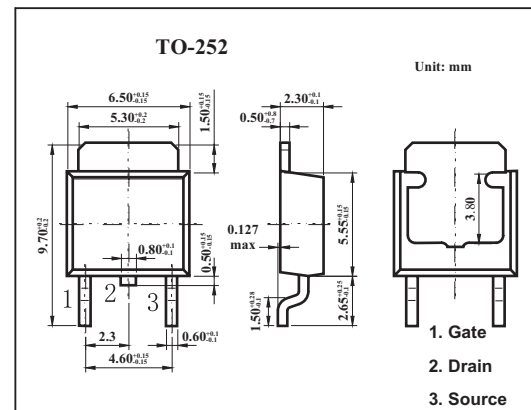
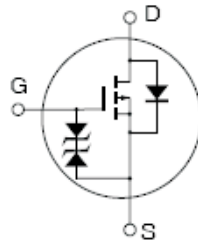


## Silicon P-Channel MOS FET

### 2SJ130S

#### ■ Features

- Low on-resistance
- High speed switching
- Low drive current
- No secondary breakdown
- Suitable for switching regulator, DC-DC converter and ultrasonic power oscillators



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	$V_{DS}$	-300	V
Gate to source voltage	$V_{GS}$	$\pm 20$	V
Drain current	$I_{D(DS)}$	-1	A
Drain peak current	$I_{D(pulse)}$	-2	A
Body to drain diode reverse drain current	$I_{DR}$	-1	A
Channel dissipation ( $T_c=25^\circ\text{C}$ )	$P_{ch}$	20	W
Channel temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

## 2SJ130S

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain to source breakdown voltage	$V_{(BR)DSS}$	$I_D = -10 \text{ mA}, V_{GS} = 0$	-300			V
Gate to source breakdown voltage	$V_{(BR)GSS}$	$I_G = \pm 100 \text{ } \mu\text{A}, V_{DS} = 0$	$\pm 20$			V
Gate to source leak current	$I_{GSS}$	$V_{GS} = \pm 16 \text{ V}, V_{DS} = 0$			$\pm 10$	$\mu\text{A}$
Zero gate voltage drain current	$I_{DSS}$	$V_{DS} = -240 \text{ V}, V_{GS} = 0$			-100	$\mu\text{A}$
Gate to source cutoff voltage	$V_{GS(off)}$	$I_D = -1 \text{ mA}, V_{DS} = -10 \text{ V}$	-2		-4	V
Static Drain to source on statesresistance	$R_{DS(on)}$	$I_D = -0.5 \text{ A}, V_{GS} = -10 \text{ V}$		6.0	8.5	$\Omega$
Forward transfer admittance	$ y_{fs} $	$I_D = -0.5 \text{ A}, V_{DS} = -20 \text{ V}$	0.25	0.4		S
Input capacitance	$C_{iss}$	$V_{DS} = -10 \text{ V}, V_{GS} = 0,$		235		pF
Output capacitance	$C_{oss}$	$f = 1 \text{ MHz}$		65		pF
Reverse transfer capacitance	$C_{rss}$			16		pF
Turn-on delay time	$t_{d(on)}$	$I_D = -0.5 \text{ A}, V_{GS} = -10 \text{ V},$		10		ns
Rise time	$t_r$	$R_L = 60 \text{ } \Omega$		25		ns
Turn-off delay time	$t_{d(off)}$			35		ns
Fall time	$t_f$			45		ns
Body to drain diode forward voltage	$V_{DF}$	$I_F = -1 \text{ A}, V_{GS} = 0$		-0.9		V
Body to drain diode reverse recovery time	$t_{rr}$	$I_F = -1 \text{ A}, V_{GS} = 0, diF/dt = 50 \text{ A}/\mu\text{s}$		200		ns