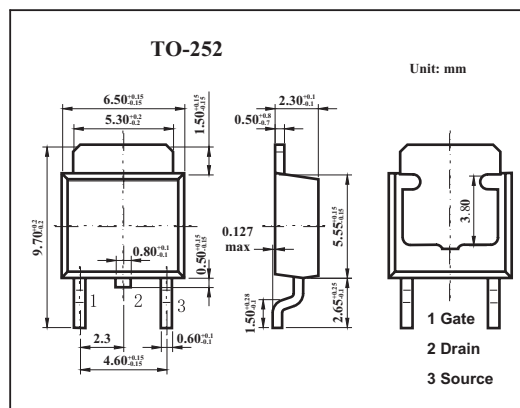
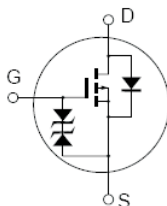


Silicon P-Channel MOSFET

2SJ319S

■ Features

- Low on-state resistance
 $R_{DS(on)} = 2.3 \Omega$ ($V_{GS} = -10V, I_D = -2A$)
- High speed switching



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DS}	-200	V
Gate to source voltage	V_{GS}	± 20	V
Drain current (DC)	I_D	-3	A
Drain current(pulse) *	I_D	-12	A
Power dissipation	P_D	20	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* $PW \leq 10 \mu\text{s}$; $d \leq 1\%$.

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain to source breakdown voltage	V_{DS}	$I_D = -10\text{mA}, V_{GS} = 0$	-200			V
Gate to source breakdown voltage	V_{GS}	$I_G = \pm 100 \mu\text{A}, V_{DS} = 0$	± 20			V
Drain cut-off current	I_{DSS}	$V_{DS} = -160V, V_{GS} = 0$			-100	μA
Gate leakage current	I_{GSS}	$V_{GS} = \pm 16V, V_{DS} = 0$			± 10	μA
Gate cut-off voltage	$V_{GS(off)}$	$V_{DS} = -10V, I_D = -1\text{mA}$	-2.0		-4.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = -10V, I_D = -2A$	1.0	1.7		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS} = -10V, I_D = -2A$		1.7	2.3	Ω
Input capacitance	C_{iss}	$V_{DS} = -10V, V_{GS} = 0, f = 1\text{MHz}$		330		pF
Output capacitance	C_{oss}			130		pF
Reverse transfer capacitance	C_{rss}			25		pF
Turn-on delay time	$t_{d(on)}$			10		ns
Rise time	t_r	$V_{GS(on)} = -10V, I_D = -2A, R_L = 15 \Omega$		30		ns
Turn-off delay time	$t_{d(off)}$			40		ns
Fall time	t_f			30		ns
Body to drain diode forward voltage	V_{DF}	$I_F = -3A, V_{GS} = 0$		-1.15		V
Body to drain diode reverse recovery time	t_{rr}	$I_F = -3A, V_{GS} = 0, di/dt = 50A/\mu\text{s}$		180		ns