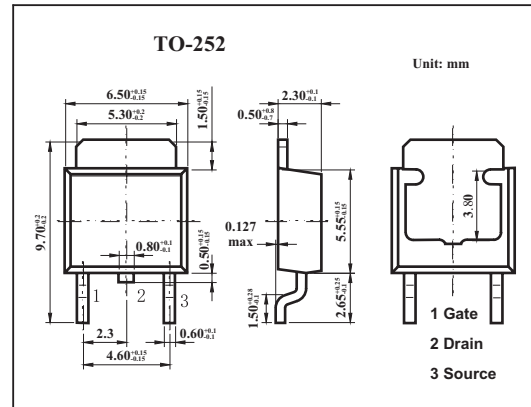
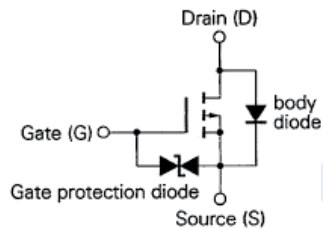


MOS Field Effect Power Transistors

2SJ325

■ Features

- Low on-state resistance
 $R_{DS(on)}=83\text{m}\Omega$ ($V_{GS}=-10\text{V}, I_D=-2\text{A}$)
 $R_{DS(on)}=0.15\Omega$ ($V_{GS}=-4\text{V}, I_D=-1.6\text{A}$)
- Built-in G-S Gate Protection Diode



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

Parameter	Symbol	Rating	Unit	
Drain to source voltage	V_{DSS}	-30	V	
Gate to source voltage (DC)	V_{GSS}	-20,+10	V	
Gate to source voltage (AC)	V_{GSS}	± 20	V	
Drain current (DC)	I_D	± 4.0	A	
Drain current(pulse) *	I_D	± 16	A	
Power dissipation	P_D	$T_C=25^\circ\text{C}$	20	W
		$T_A=25^\circ\text{C}$	1.0	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$	

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

2SJ325

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	$V_{DS}=-30V, V_{GS}=0$			-10	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 16V, V_{DS}=0$			± 10	μA
Gate cut-off voltage	$V_{GS(off)}$	$V_{DS}=-10V, I_D=-1mA$	-1.0	-1.5	-2.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=-10V, I_D=-2.0A$	3.0	4.2		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=-10V, I_D=-2.0A$		0.18	0.11	Ω
		$V_{GS}=-4V, I_D=-1.6A$		0.15	0.24	Ω
Input capacitance	C_{iss}	$V_{DS}=-10V, V_{GS}=0, f=1MHz$		800		pF
Output capacitance	C_{oss}			600		pF
Reverse transfer capacitance	C_{rss}			250		pF
Turn-on delay time	$t_{d(on)}$			15		ns
Rise time	t_r	$V_{GS(on)}=-10V, V_{DD}=-15V, I_D=-2A, R_L=7.5\Omega, R_G=10\Omega$		65		ns
Turn-off delay time	$t_{d(off)}$			85		ns
Fall time	t_f			60		ns
Total Gate Charge	Q_g				28	
Gate to Source Charge	Q_{GS}	$V_{GS}=-10V, I_D=-4.0A, V_{DD}=-24V$		3		nC
Gate Drain Charge	Q_{GD}			11		nC
Body Diode Forward Voltage	V_F		$I_F=4.0A, V_{GS}=0$		0.9	
Reverse Recovery time	t_{rr}	$I_F=4.0A, V_{GS}=0, di/dt=50A/\mu s$		65		ns
Reverse Recovery Charge	Q_{rr}				60	