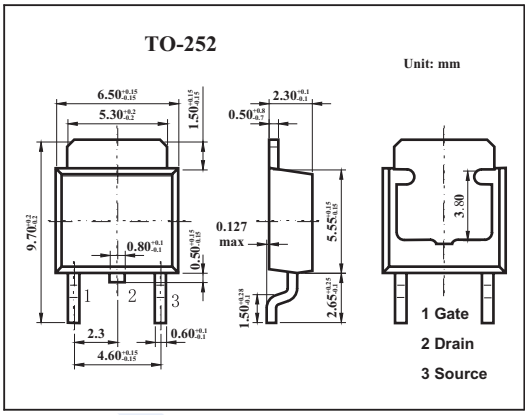
MOS Field Effect Power Transistors

2SJ325



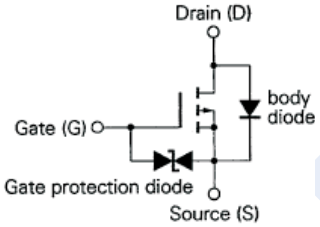
Features

- Low on-state resistance

  $R_{DS(on)}$=83mΩ (V_{GS}=-10V,I_D=-2A)

  $R_{DS(on)}$=0.15Ω (V_{GS}=-4V,I_D=-1.6A)

- Built-in G-S Gate Protection Diode



Absolute Maximum Ratings Ta = 25℃

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 Tc=25℃	P_D	20	W
Ta=25℃		1.0	W
Channel temperature	T_{ch}	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

* PW ⩽ 10 μs; d ⩽ 1%.

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	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}=±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	$t_{d(on)}$	$V_{GS(on)}$=-10V,V_{DD}=-15V,I_D=--2A R_L=7.5Ω,R_G=10Ω		15		ns
Rise time	t_r			65		ns
Turn-off delay time	$t_{d(off)}$			85		ns
Fall time	t_f			60		ns
Total Gate Charge	Q_g	V_{GS}=-10V,I_D=-4.0A,V_{DD}=-24V		28		nC
Gate to Source Charge	Q_{GS}			3		nC
Gate Drain Charge	Q_{GD}			11		nC
Body Diode Forward Voltage	V_F	I_F=4.0A,V_{GS}=0		0.9		V
Reverse Recovery time	t_{rr}	I_F=4.0A,V_{GS}=0,di/dt=50A/μs		65		ns
Reverse Recovery Charge	Q_{rr}			60		nC