

## MOS Field Effect Transistors

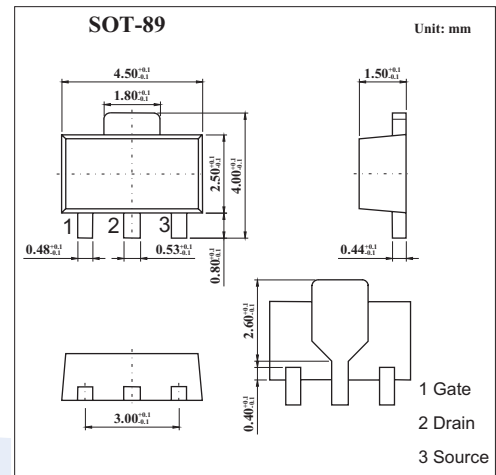
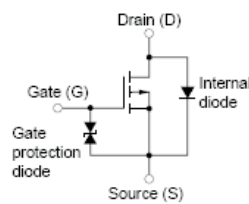
### 2SJ356

#### ■ Features

- Low on-state resistance

$R_{DS(on)}=0.95\ \Omega$  ( $V_{GS}=-4V, I_D=-1.0A$ )

$R_{DS(on)}=0.50\ \Omega$  ( $V_{GS}=-10V, I_D=-1.0A$ )



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	$V_{DSS}$	-60	V
Gate to source voltage	$V_{GSS}$	-20,+10	V
Drain current (DC)	$I_D$	$\pm 2.0$	A
Drain current(pulse) *	$I_D$	$\pm 4$	A
Power dissipation	$P_D$	2.0	W
Channel temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

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## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	$I_{DSS}$	$V_{DS}=-60V, V_{GS}=0$			-10	$\mu A$
Gate leakage current	$I_{GSS}$	$V_{GS}=\pm 16/+10V, V_{DS}=0$			$\pm 10$	$\mu A$
Gate cut-off voltage	$V_{GS(off)}$	$V_{DS}=-10V, I_D=-1mA$	-1.0	-1.4	-2.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=-10V, I_D=-1.0A$	1.0			S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=-4V, I_D=-1.0A$		0.65	0.95	$\Omega$
		$V_{GS}=-10V, I_D=-1.0A$		0.41	0.50	$\Omega$
Input capacitance	$C_{iss}$	$V_{DS}=-10V, V_{GS}=0, f=1MHz$		270		pF
Output capacitance	$C_{oss}$			145		pF
Reverse transfer capacitance	$C_{rss}$			55		pF
Turn-on delay time	$t_{d(on)}$			4.3		ns
Rise time	$t_r$	$V_{GS(on)}=-10V, V_{DD}=-25V, I_D=-1A, R_L=255\Omega, R_G=10\Omega$		21		ns
Turn-off delay time	$t_{d(off)}$			115		ns
Fall time	$t_f$			75		ns
Total Gate Charge	$Q_g$	$V_{GS}=-10V, I_D=-2.0A, V_{DD}=-48V, I_G=-2mA$		11.6		nC
Gate to Source Charge	$Q_{GS}$			1.0		nC
Gate Drain Charge	$Q_{GD}$			3.8		nC
Reverse Recovery time	$t_{rr}$	$I_F=2.0A, V_{GS}=0, di/dt=50A/\mu s$		82		ns
Reverse Recovery Charge	$Q_{rr}$			94		nC