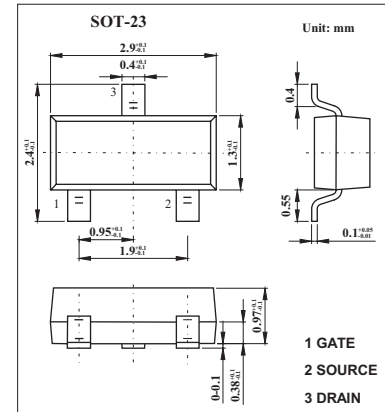
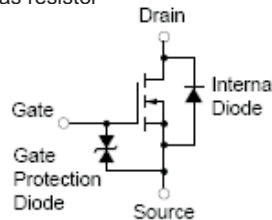


## MOS Field Effect Transistor

### 2SK1399

#### ■ Features

- Can be driven by a 3.0-V power source
- Not necessary to consider driving current because of its high input impedance
- Possible to reduce the number of parts by omitting the bias resistor



#### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Drain to source voltage	V <sub>DSS</sub>	50	V
Gate to source voltage	V <sub>GSS</sub>	±7.0	V
Drain current (DC)	I <sub>D</sub>	±100	mA
Drain current(pulse) *	I <sub>D</sub>	±200	mA
Power dissipation	P <sub>D</sub>	200	m W
Channel temperature	T <sub>ch</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

\* PW ≤ 10ms, duty cycle ≤ 5%

#### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I <sub>DSS</sub>	V <sub>DS</sub> =50V, V <sub>GS</sub> =0			10	μ A
Gate leakage current	I <sub>GSS</sub>	V <sub>GS</sub> =±7.0V, V <sub>DS</sub> =0			±5.0	μ A
Gate to source cutoff voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =3.0V, I <sub>D</sub> =1 μ A	0.9	1.2	1.5	V
Forward transfer admittance	Y <sub>fs</sub>	V <sub>DS</sub> =3.0V, I <sub>D</sub> =10mA	20	38		ms
Drain to source on-state resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> =2.5V, I <sub>D</sub> =10mA		22	40	Ω
		V <sub>GS</sub> =4.0V, I <sub>D</sub> =10mA		14	20	Ω
Input capacitance	C <sub>iss</sub>	V <sub>DS</sub> =3.0V, V <sub>GS</sub> =0, f=1MHZ		8		pF
Output capacitance	C <sub>oss</sub>			7		pF
Reverse transfer capacitance	C <sub>rss</sub>			3		pF
Turn-on delay time	t <sub>d(on)</sub>	I <sub>D</sub> =20mA, V <sub>GS(on)</sub> =3V, R <sub>L</sub> =150 Ω, V <sub>DD</sub> =3.0V, R <sub>G</sub> =10 Ω		15		ns
Rise time	t <sub>r</sub>			100		ns
Turn-off delay time	t <sub>d(off)</sub>			30		ns
Fall time	t <sub>f</sub>			35		ns

#### ■ Marking

Marking	G12
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