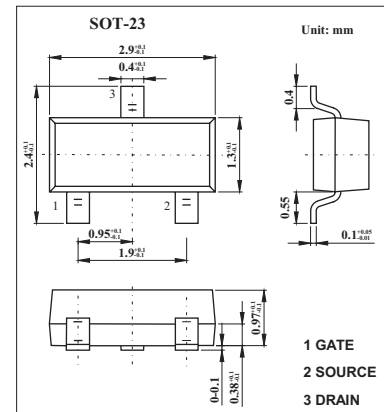
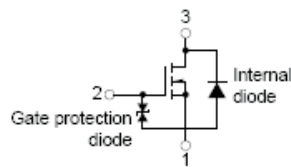


## MOS Field Effect Transistor 2SK2158

### ■ Features

- Capable of drive gate with 1.5 V
- Because of high input impedance, there is no need to consider driving current.
- Bias resistance can be omitted, enabling reduction in total number of parts.



### ■ 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	I <sub>D</sub>	±0.1	A
	I <sub>DP</sub> *	±0.2	A
Power dissipation	P <sub>D</sub>	200	mW
Channel temperature	T <sub>ch</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

\* PW ≤ 10 μs, Duty Cycle ≤ 1%

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain cut-off current	I <sub>DSS</sub>	V <sub>DS</sub> =50V, V <sub>GS</sub> =0			1.0	μA
Gate leakage current	I <sub>GSS</sub>	V <sub>GS</sub> =±7.0V, V <sub>DS</sub> =0			±3.0	μA
Gate to source cutoff voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =3V, I <sub>D</sub> =10 μA	0.5	0.7	1.1	V
Forward transfer admittance	Y <sub>fs</sub>	V <sub>DS</sub> =3V, I <sub>D</sub> =10mA	20			ms
Drain to source on-state resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> =1.5V, I <sub>D</sub> =1.0mA		32	50	Ω
		V <sub>GS</sub> =2.5V, I <sub>D</sub> =10mA		16	20	Ω
		V <sub>GS</sub> =4.0V, I <sub>D</sub> =1.0mA		12	15	Ω
Input capacitance	C <sub>iss</sub>	V <sub>DS</sub> =3V, V <sub>GS</sub> =0, f=1MHz		6		pF
Output capacitance	C <sub>oss</sub>		8		pF	
Reverse transfer capacitance	C <sub>rss</sub>		1		pF	
Turn-on delay time	t <sub>d(on)</sub>		9		ns	
Rise time	t <sub>r</sub>	I <sub>D</sub> =20mA, V <sub>GS(on)</sub> =3V, R <sub>L</sub> =150 Ω, R <sub>G</sub> =10 Ω, V <sub>DD</sub> =3V		48		ns
Turn-off delay time	t <sub>d(off)</sub>			21		ns
Fall time	t <sub>f</sub>			31		ns

### ■ Marking

Marking	G23
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