# 2SK0614 (2SK614)

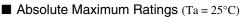
### Silicon N-Channel MOS FET

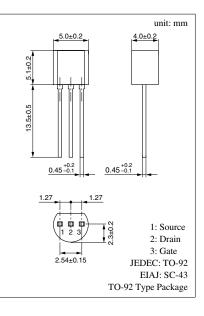
#### For switching

#### Features

- Low ON-resistance  $R_{DS(on)}$
- High-speed switching
- Allowing to be driven directly by CMOS and TTL

Parameter	Symbol	Ratings	Unit	
Drain to Source voltage	V <sub>DS</sub>	80	V	
Gate to Source voltage	V <sub>GSO</sub>	20	V	
Drain current	I <sub>D</sub>	±0.5	А	
Max drain current	I <sub>DP</sub>	±1	А	
Allowable power dissipation	P <sub>D</sub>	750	mW	
Channel temperature	T <sub>ch</sub>	150	°C	
Storage temperature	T <sub>stg</sub>	-55 to +150	°C	



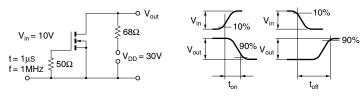


#### ■ Electrical Characteristics (Ta = 25°C)

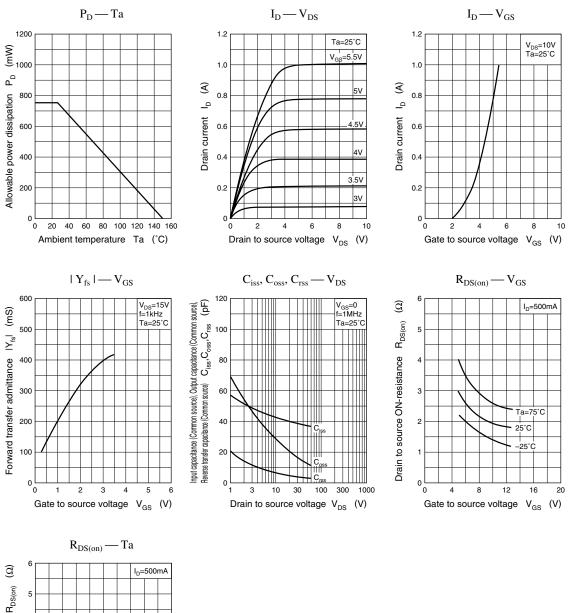
Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source cut-off current	I <sub>DSS</sub>	$V_{DS} = 60V, V_{GS} = 0$			10	μΑ
Gate to Source leakage current	I <sub>GSS</sub>	$V_{GS} = 20V, V_{DS} = 0$			0.1	μΑ
Drain to Source breakdown voltage	V <sub>DSS</sub>	$I_{DS} = 100 \mu A, V_{GS} = 0$	80			V
Gate threshold voltage	V <sub>th</sub>	$I_D = 1mA, V_{DS} = V_{GS}$	1.5		3.5	v
Drain to Source ON-resistance	R <sub>DS(on)</sub> *1	$I_D = 0.5A, V_{GS} = 10V$		2	4	Ω
Forward transfer admittance	Y <sub>fs</sub>	$I_D = 0.2A, V_{DS} = 15V, f = 1kHz$		300		mS
Input capacitance (Common Source)	C <sub>iss</sub>	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		45		pF
Output capacitance (Common Source)	C <sub>oss</sub>			30		pF
Reverse transfer capacitance (Common Source)	C <sub>rss</sub>			8		pF
Turn-on time	ton*2			15		ns
Turn-off time	t <sub>off</sub> *2			20		ns

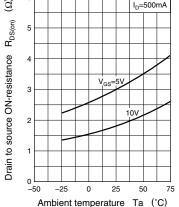
\*1 Pulse measurement

 $^{\ast 2}$   $t_{on},\,t_{off}$  measurement circuit



Note) The part number in the parenthesis shows conventional part number.





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