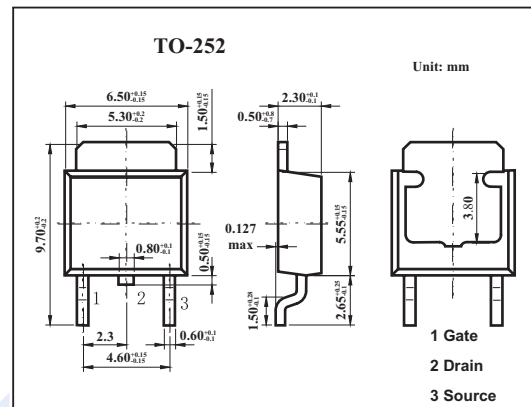


Silicon N-Channel MOSFET 2SK2503

■ Features

- Low on-resistance.
- Fast switching speed.
- Wide SOA (safe operating area).
- Easily designed drive circuits.
- Easy to parallel.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	60	V
Gate to source voltage	V_{GSS}	± 20	V
Drain current	I_D	5	A
	I_{DP}^*	20	A
Power dissipation	P_D	20	W
Channel temperature	T_{ch}	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

* $PW \leq 10 \mu s$, Duty Cycle $\leq 1\%$

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Drain source breakdown voltage	V_{DSS}	$I_D=1mA, V_{GS}=0V$	60			V	
Drain cut-off current	I_{DSS}	$V_{DS}=60V, V_{GS}=0$			10	μA	
Gate leakage current	I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0$			± 100	nA	
Gate threshold voltage	$V_{GS(th)}$	$V_{DS}=10V, I_D=1mA$	1.0		2.5	V	
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10V, I_D=2.5A$	4.0			S	
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=10V, I_D=2.5A$		0.11	0.135	Ω	
		$V_{GS}=4V, I_D=2.5A$		0.17	0.20	Ω	
Input capacitance	C_{iss}	$V_{DS}=10V, V_{GS}=0, f=1MHz$		520		pF	
Output capacitance	C_{oss}			240		pF	
Reverse transfer capacitance	C_{rss}			100		pF	
Turn-on delay time	t_{on}				5		ns
Rise time	t_r	$I_D=2.5A, V_{GS(on)}=10V, R_G=10\Omega, R_L=12\Omega, V_{DD}=30V$		20		ns	
Turn-off delay time	t_{off}				50		ns
Fall time	t_f				20		ns