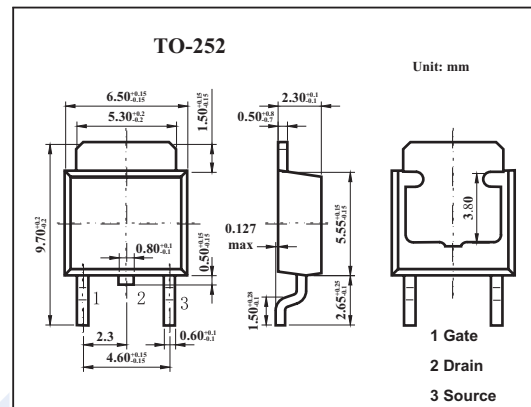


Silicon N-Channel MOSFET

2SK2504

■ 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}	100	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 ≤ 10 μs, Duty Cycle ≤ 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	100			V	
Drain cut-off current	I _{DSS}	V _{DS} =100V, V _{GS} =0			10	μA	
Gate leakage current	I _{GSS}	V _{GS} =±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		0.18	0.22	Ω	
		V _{GS} =4V, I _D =2.5A		0.25	0.28	Ω	
Input capacitance	C _{iss}	V _{DS} =10V, V _{GS} =0, f=1MHZ		520		pF	
Output capacitance	C _{oss}			175		pF	
Reverse transfer capacitance	C _{rss}			60		pF	
Turn-on delay time	t _{on}				5		ns
Rise time	t _r	I _D =2.5A, V _{GS(on)} =10V, R _G =10 Ω, R _L =20 Ω, V _{DD} =50V		20		ns	
Turn-off delay time	t _{off}				50		ns
Fall time	t _f				20		ns