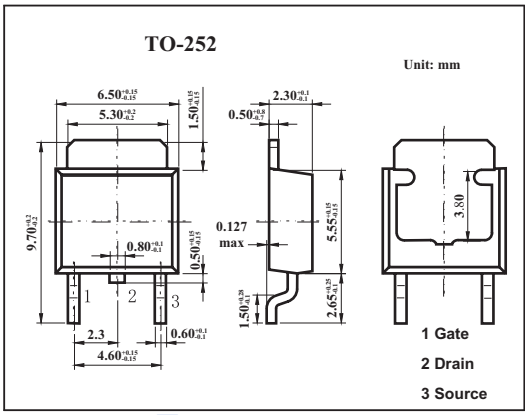
TY Semicondutor®

Product specification

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℃

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	℃
Storage temperature	T_{stg}	-55 to +150	℃

* PW≤10μs,Duty Cycle≤1%

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	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}=±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	0135	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}	I_D=2.5A,$V_{GS(on)}$=10V,R_G=10Ω,RL=12Ω,V_{DD}=30V		5		ns
Rise time	t_r			20		ns
Turn-off delay time	t_{off}			50		ns
Fall time	tf			20		ns