TY Semicondutor®

Product specification

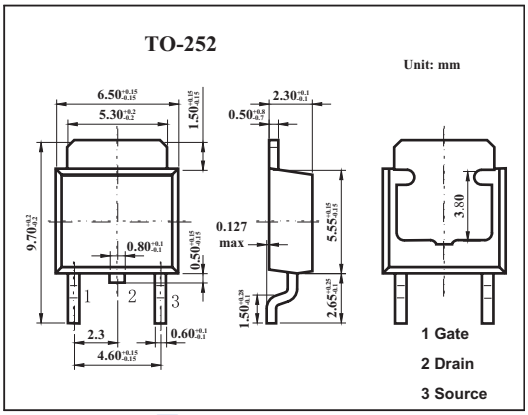
2SK3113

■ Features

- Low on-state resistance

  $R_{DS(on)}$ = 4.4 Ω MAX. (V_{GS} = 10 V, I_D = 1.0 A)
- Low gate charge

  Q_G = 9 nC TYP. (V_{DD} = 450 V, V_{GS} = 10 V, I_D = 2.0 A)
- Gate voltage rating ±30 V
- Avalanche capability ratings



■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	600	V
Gate to source voltage	V_{GSS}	±30	V
Drain current	I_D	±2.0	A
	I_{dp} *	±8.0	A
Power dissipation T_C=25℃ / T_A=25℃	P_D	20 / 1.0	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 cut-off current	I_{DSS}	V_{DS}=600V,V_{GS}=0			100	μA
Gate leakage current	I_{GSS}	V_{GS}=±30V,V_{DS}=0			±10	μA
Gate to source cut off voltage	$V_{GS(off)}$	V_{DS}=10V,I_D=1mA	2.5		3.5	V
Forward transfer admittance	$\|Y_{fs}\|$	V_{DS}=10V,I_D=1.0A	0.5			S
Drain to source on-state resistance	$R_{DS(on)}$	V_{GS}=10V,I_D=1.0A		3.3	4.4	Ω
Input capacitance	C_{iss}	V_{DS}=10V,V_{GS}=0,f=1MHZ		260		pF
Output capacitance	C_{oss}			60		pF
Reverse transfer capacitance	C_{rss}			5		pF
Turn-on delay time	t_{on}	I_D=1.0A,$V_{GS(on)}$=10V,V_{DD}=150V,R_G=10Ω,R_L=10Ω		7		ns
Rise time	t_r			2		ns
Turn-off delay time	t_{off}			22		ns
Fall time	tf			9		ns