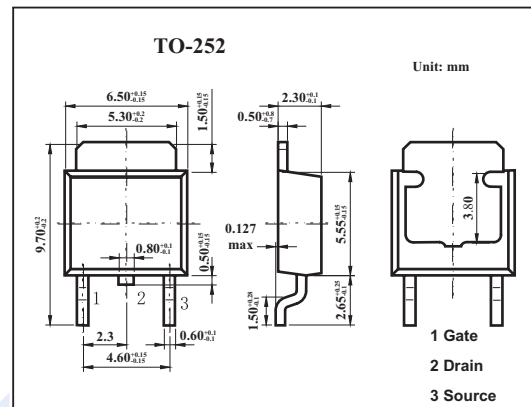


N-Channel Silicon MOSFET 2SK2887

■ Features

- Low on-resistance.
- Fast switching speed.
- Wide SOA (safe operating area).
- Gate-source voltage (V_{GS}) guaranteed to be $\pm 30V$.
- Easily designed drive circuits.
- Easy to parallel.



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DS}	200	V
Gate to source voltage	V_{GS}	± 30	V
Drain current	I_D	3	A
	I_{DP}^*	12	A
Power dissipation	P_D	20	W
Channel temperature	T_{ch}	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

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

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Drain to source breakdown voltage	V_{DS}	$I_D=1mA, V_{GS}=0$	200			V	
Drain cut-off current	I_{DSS}	$V_{DS}=200V, V_{GS}=0$			100	μA	
Gate leakage current	I_{GSS}	$V_{GS}=\pm 30V, V_{DS}=0$			± 100	nA	
Gate threshold voltage	$V_{GS(th)}$	$V_{DS}=10V, I_D=1mA$	2.0		4.0	V	
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10V, I_D=1.5A$	0.6	1.5		S	
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=10V, I_D=1.5A$		0.7	0.9	Ω	
Input capacitance	C_{iss}	$V_{DS}=10V, V_{GS}=0, f=1MHz$		230		pF	
Output capacitance	C_{oss}				100		pF
Reverse transfer capacitance	C_{rss}				35		pF
Turn-on delay time	t_{on}	$I_D=1.5A, V_{GS(on)}=10V, R_L=68\Omega, R_G=10\Omega, V_{DD}=100V$		10		ns	
Rise time	t_r				12		ns
Turn-off delay time	t_{off}				26		ns
Fall time	t_f				34		ns
Reverse recovery time	t_{rr}	$I_{DR}=3A, V_{GS}=0V, di/dt=100A/\mu s$		96		ns	
Reverse recovery charge	Q_{rr}			0.56			μC