

SMD Type

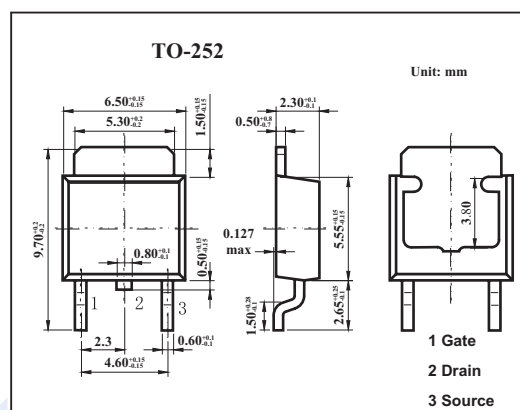
MOSFET

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