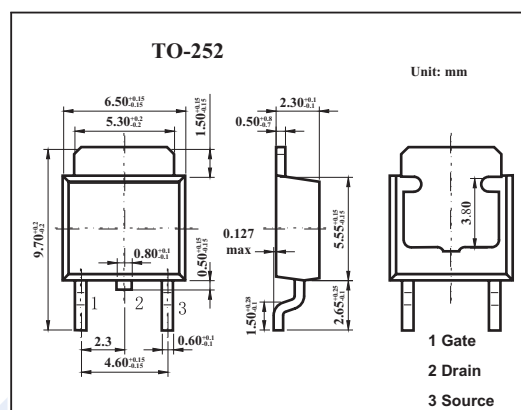


Silicon N-Channel MOSFET

2SK2715

■ Features

- Low on-resistance.
- Fast switching speed.
- Wide SOA (safe operating area).
- Easily designed drive circuits.
- Easy to parallel.



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DS}	500	V
Gate to source voltage	V_{GS}	± 30	V
Drain current	I_D	2	A
	I_{DP}^*	6	A
Power dissipation	P_D	20	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain source breakdown voltage	V_{DS}	$I_D = 1\text{mA}$, $V_{GS} = 0\text{V}$	500			V
Drain cut-off current	I_{DSS}	$V_{DS} = 500\text{V}$, $V_{GS} = 0$			100	μA
Gate leakage current	I_{GSS}	$V_{GS} = \pm 30\text{V}$, $V_{DS} = 0$			± 100	nA
Gate threshold voltage	$V_{GS(th)}$	$V_{DS} = 10\text{V}$, $I_D = 1\text{mA}$	2.0		4.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 10\text{V}$, $I_D = 1\text{A}$	0.6	1.5		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS} = 10\text{V}$, $I_D = 1\text{A}$		3.0	4.0	Ω
Input capacitance	C_{iss}	$V_{DS} = 10\text{V}$, $V_{GS} = 0$, $f = 1\text{MHz}$		280		pF
Output capacitance	C_{oss}			58		pF
Reverse transfer capacitance	C_{rss}			23		pF
Turn-on delay time	t_{on}	$I_D = 1\text{A}$, $V_{GS(on)} = 10\text{V}$, $R_G = 10 \Omega$, $R_L = 150 \Omega$, $V_{DD} = 150\text{V}$		10		ns
Rise time	t_r			12		ns
Turn-off delay time	t_{off}			30		ns
Fall time	t_f			63		ns