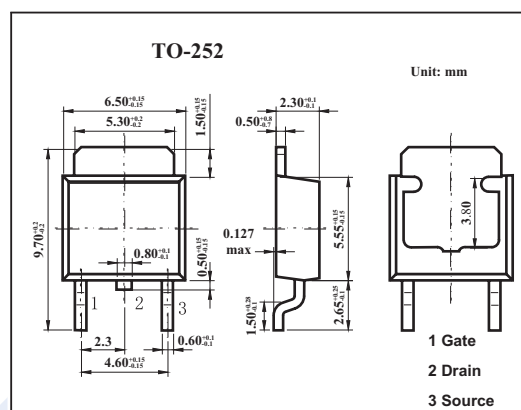
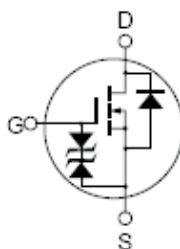


Silicon N-Channel MOSFET

2SK2735S

Features

- Low on-resistance
- $R_{DS} = 20 \text{ m}\Omega$ typ.
- High speed switching
- 4V gate drive device can be driven from 5V source



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DS}	30	V
Gate to source voltage	V_{GS}	± 20	V
Drain current	I_D	20	A
	I_{DP}^*	80	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	Test conditions	Min	Typ	Max	Unit
Drain source breakdown voltage	V_{DS}	$I_D = 10 \text{ mA}$, $V_{GS} = 0 \text{ V}$	30			V
Drain cut-off current	I_{DSS}	$V_{DS} = 30 \text{ V}$, $V_{GS} = 0$			10	μA
Gate leakage current	I_{GSS}	$V_{GS} = \pm 16 \text{ V}$, $V_{DS} = 0$			± 10	μA
Gate to source cutoff voltage	$V_{GS(off)}$	$V_{DS} = 10 \text{ V}$, $I_D = 1 \text{ mA}$	1.0		2.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 10 \text{ V}$, $I_D = 10 \text{ A}$	8	16		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS} = 10 \text{ V}$, $I_D = 10 \text{ A}$		20	28	$\text{m}\Omega$
		$V_{GS} = 4 \text{ V}$, $I_D = 10 \text{ A}$		35	50	$\text{m}\Omega$
Input capacitance	C_{iss}	$V_{DS} = 10 \text{ V}$, $V_{GS} = 0$, $f = 1 \text{ MHz}$		750		pF
Output capacitance	C_{oss}			520		pF
Reverse transfer capacitance	C_{rss}			210		pF
Turn-on delay time	t_{on}			16		ns
Rise time	t_r	$I_D = 10 \text{ A}$, $V_{GS(on)} = 10 \text{ V}$, $R_L = 1 \Omega$		225		ns
Turn-off delay time	t_{off}			85		ns
Fall time	t_f			90		ns