

MOS Field Effect Transistor

2SK2857

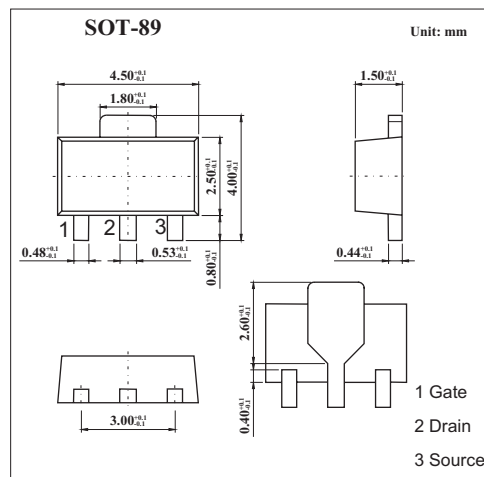
■ Features

- Can be driven by a 5V power source.

- Low On-state resistance :

$R_{DS(on)1} = 220 \text{ m}\Omega \text{ MAX. (} V_{GS} = 4 \text{ V, } I_D = 1.5 \text{ A)}$

$R_{DS(on)2} = 150 \text{ m}\Omega \text{ MAX. (} V_{GS} = 10 \text{ V, } I_D = 2.5 \text{ A)}$



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DS}	60	V
Gate to source voltage	V_{GS}	± 20	V
Drain current	I_D	± 4	A
	I_{DP}^*	± 16	A
Power dissipation	P_D	2	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 cut-off current	I_{DSS}	$V_{DS}=60\text{V}, V_{GS}=0$			10	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 20\text{V}, V_{DS}=0$			± 10	μA
Gate to source cutoff voltage	$V_{GS(off)}$	$V_{DS}=10\text{V}, I_D=1\text{mA}$	1.0	11.4	2.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10\text{V}, I_D=2\text{A}$	1			S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=4\text{V}, I_D=1.5\text{A}$		150	220	$\text{m}\Omega$
		$V_{GS}=10\text{V}, I_D=2.5\text{A}$		110	150	$\text{m}\Omega$
Input capacitance	C_{iss}	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$		265		pF
Output capacitance	C_{oss}			125		pF
Reverse transfer capacitance	C_{rss}			56		pF
Turn-on delay time	t_{on}	$I_D=1\text{A}, V_{GS(on)}=10\text{V}, R_L=25\Omega, R_G=10\Omega, V_{DD}=25\text{V}$		8		ns
Rise time	t_r			11		ns
Turn-off delay time	t_{off}			52		ns
Fall time	t_f			22		ns

■ Marking

Marking	NX
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