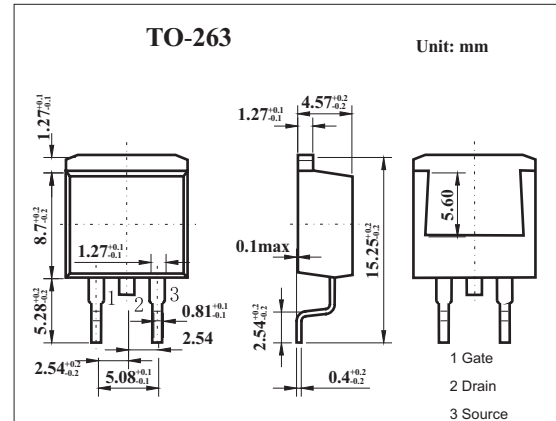


N-Channel Enhancement Mode MOSFET

2SK3494

■ Features

- Low on-resistance, low Q_g
- High avalanche resistance



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DS}	250	V
Gate to source voltage	V_{GS}	± 30	V
Drain current	I_D	20	A
	I_{dp}^*	80	A
Power dissipation	P_D	50	W
		1.4	
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 cut-off current	I_{DSS}	$V_{DS}=200\text{V}, V_{GS}=0$			10	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 30\text{V}, V_{DS}=0$			± 1	μA
Gate threshold voltage	V_{th}	$V_{DS}=10\text{V}, I_D=1\text{mA}$	2.0		4.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10\text{V}, I_D=10\text{A}$	7	14		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=10\text{V}, I_D=10\text{A}$		82	105	m Ω
Input capacitance	C_{iss}	$V_{DS}=25\text{V}, V_{GS}=0, f=1\text{MHz}$		2450		pF
Output capacitance	C_{oss}			356		pF
Reverse transfer capacitance	C_{rss}			40		pF
Turn-on delay time	t_{on}	$I_D=10\text{A}, V_{GS(on)}=10\text{V}, R_L=10 \Omega, V_{DD}=100\text{V}$		36		ns
Rise time	t_r			20		ns
Turn-off delay time	t_{off}			184		ns
Fall time	t_f			29		ns
Total Gate Charge	Q_G	$I_D=10\text{A}, V_{DD}=100\text{V}, V_{GS}=10\text{V}$		41		nC
Gate to Source Charge	Q_{GS}			8.4		nC
Gate to Drain Charge	Q_{GD}			14		nC