

MOS Field Effect Transistor 2SK3322

■ Features

- Low gate charge
 $Q_G = 15 \text{ nC TYP. (} V_{DD} = 450\text{V, } V_{GS} = 10 \text{ V, } I_D = 5.5\text{A)}$
- Gate voltage rating $\pm 30 \text{ V}$
- Low on-state resistance
 $R_{DS(on)} = 2.2 \Omega \text{ MAX. (} V_{GS} = 10 \text{ V, } I_D = 2.8\text{A)}$
- Avalanche capability ratings



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	600	V
Gate to source voltage	V_{GSS}	± 30	V
Drain current	I_D	± 5.5	A
	I_{DP}^*	± 20	A
Power dissipation	P_D	$T_a = 25^\circ\text{C}$	1.5
		$T_c = 25^\circ\text{C}$	65
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}	$V_{DS} = 600\text{V, } V_{GS} = 0$			100	μA	
Gate leakage current	I_{GSS}	$V_{GS} = \pm 30\text{V, } V_{DS} = 0$			± 10	μA	
Gate cutoff voltage	$V_{GS(off)}$	$V_{DS} = 10\text{V, } I_D = 1\text{mA}$	2.5		3.5	V	
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 10\text{V, } I_D = 2.8\text{A}$	1.0			S	
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS} = 10\text{V, } I_D = 2.8\text{A}$		1.7	2.2	Ω	
Input capacitance	C_{iss}	$V_{DS} = 10\text{V, } V_{GS} = 0, f = 1\text{MHz}$		550		pF	
Output capacitance	C_{oss}				115		pF
Reverse transfer capacitance	C_{rss}				13		pF
Turn-on delay time	t_{on}	$I_D = 2.8\text{A, } V_{GS(on)} = 10\text{V, } R_G = 10 \Omega, V_{DD} = 150\text{V}$		12		ns	
Rise time	t_r				10		ns
Turn-off delay time	t_{off}				35		ns
Fall time	t_f				12		ns