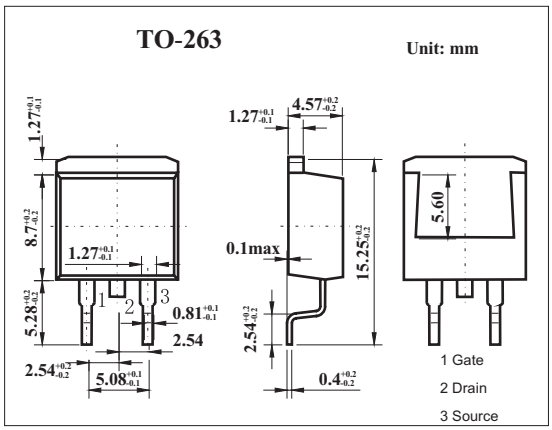
MOS Field Effect Transistor
2SK3668



■ Features

- Low gate charge

  Q_G = 26 nC TYP. (V_{DD} = 320 V, V_{GS} = 10 V, I_D = 10 A)

- Gate voltage rating: ±30 V
- Low on-state resistance

  $R_{DS(on)}$ = 0.55 Ω MAX. (V_{GS} = 10 V, I_D = 5.0 A)

- Surface mount package available

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	400	V
Gate to source voltage	V_{GSS}	±30	V
Drain current	I_D	±10	A
	I_{dp} *	±34	A
Power dissipation T_A=25℃ T_C=25℃	P_D	1.5 100	W
Channel temperature	T_{ch}	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

* PW≤10 μ s,Duty Cycle≤1%

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	V_{DS}=400V,V_{GS}=0			10	μ A
Gate leakage current	I_{GSS}	V_{GS}=±30V,V_{DS}=0			±100	nA
Gate cut off voltage	$V_{GS(off)}$	V_{DS}=10V,I_D=1mA	2.5		3.5	V
Forward transfer admittance	| Y_{fs} |	V_{DS}=10V,I_D=5.0A	3.0	5.6		S
Drain to source on-state resistance	$R_{DS(on)1}$	V_{GS}=10V,I_D=5.0A		0.4	0.55	Ω
Input capacitance	C_{iss}	V_{DS}=10V,V_{GS}=0,f=1MHZ		1320		pF
Output capacitance	C_{oss}			230		pF
Reverse transfer capacitance	C_{rss}			13		pF
Turn-on delay time	t_{on}	I_D=5.0A,$V_{GS(on)}$=10V,R_G=10 Ω,V_{DD}=150V		18		ns
Rise time	t_r			8		ns
Turn-off delay time	t_{off}			44		ns
Fall time	tf			4		ns
Total Gate Charge	Q_G	V_{DD} = 320V V_{GS} = 10 V I_D =10A		26		nC
Gate to Source Charge	Q_{GS}			7		nC
Gate to Drain Charge	Q_{GD}			11		nC
Body Diode Forward Voltage	$V_{F(S-D)}$	I_F = 10 A, V_{GS} = 0 V		0.9		V
Reverse Recovery Time	t_{rr}	I_F = 10 A, V_{GS} = 0 V		350		ns
Reverse Recovery Charge	Q_{rr}	d_i/d_t = 100 A/ μs		2.7		μC