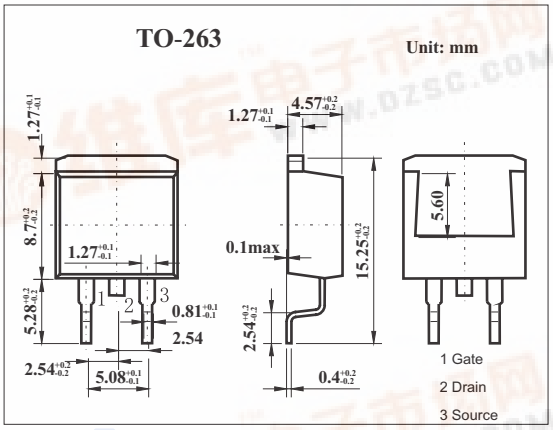
MOS Field Effect Transistor
2SK3713



Features

- Super high $V_{GS(off)}$: $V_{GS(off)}$ = 3.8 to 5.8 V
- Low C_{rss}: C_{rss} = 6.5 pF TYP.
- Low Q_G: Q_G = 25 nC TYP.
- Low on-state resistance:
  $R_{DS(on)}$ = 0.83 Ω MAX. (V_{GS} = 10 V, I_D = 5 A)

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	600	V
Gate to source voltage	V_{GSS}	±30	V
Drain current	I_D	±10	A
	I_{dp} *	±35	A
Power dissipation Ta=25℃	P_D	1.5	W
Tc=25℃		100	
Channel temperature	T_{ch}	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

* PW≤10μs,Duty Cycle≤1%

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	V_{DS}=600V,V_{GS}=0			10	μA
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	3.8	4.8	5.8	V
Forward transfer admittance	$\|Y_{fs}\|$	V_{DS}=10V,I_D=5A	2.5	4.6		S
Drain to source on-state resistance	$R_{DS(on)}$	V_{GS}=10V,I_D=5A		0.68	0.83	Ω
Input capacitance	C_{iss}	V_{DS}=10V,V_{GS}=0,f=1MHZ		1460		pF
Output capacitance	C_{oss}			250		pF
Reverse transfer capacitance	C_{rss}			6.5		pF
Turn-on delay time	t_{on}	I_D=5A,$V_{GS(on)}$=10V,R_G=0Ω,V_{DD}=150V		26		ns
Rise time	t_r			8.5		ns
Turn-off delay time	t_{off}			30		ns
Fall time	t_f			5.2		ns
Total Gate Charge	Q_G	V_{DD} = 450V V_{GS} = 10 V I_D =10A		25		nC
Gate to Source Charge	Q_{GS}			12		nC
Gate to Drain Charge	Q_{GD}			9		nC