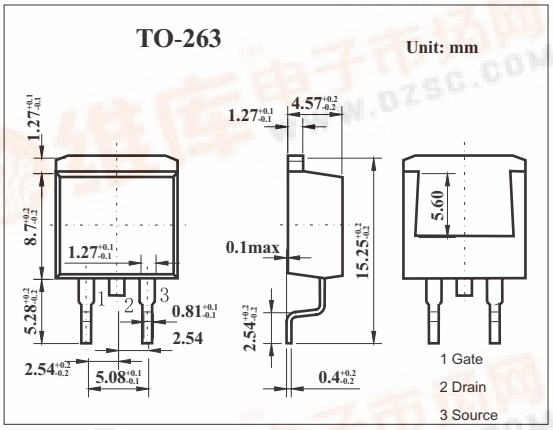
MOS Field Effect Transistor
2SK3571



■ Features

- 4.5V drive available.
- Low on-state resistance,
  $R_{DS(on)1}$ = 9mΩ MAX. (V_{GS} = 10 V, I_D = 24 A)
- Low gate charge
  Q_G = 21 nC TYP. (V_{DD} = 16 V, V_{GS} = 10 V, I_D = 48 A)
- Built-in gate protection diode
- Surface mount device available

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	20	V
Gate to source voltage	V_{GSS}	±20	V
Drain current	I_D	±48	A
	I_{dp} *	±192	A
Power dissipation Tc=25℃	P_D	40	W
Ta=25℃		1.5	
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}=20V,V_{GS}=0			10	μA
Gate leakage current	I_{GSS}	V_{GS}=±20V,V_{DS}=0			±10	μA
Gate cut off voltage	$V_{GS(off)}$	V_{DS}=10V,I_D=1mA	1.5		2.5	V
Forward transfer admittance	| Y_{fs} |	V_{DS}=10V,I_D=24A	11			S
Drain to source on-state resistance	$R_{DS(on)1}$	V_{GS}=10V,I_D=24A		7.0	9.0	mΩ
	$R_{DS(on)2}$	V_{GS}=4.5V,I_D=18A		10	16	mΩ
Input capacitance	C_{iss}	V_{DS}=10V,V_{GS}=0,f=1MHZ		1100		pF
Output capacitance	C_{oss}			450		pF
Reverse transfer capacitance	C_{rss}			160		pF
Turn-on delay time	t_{on}	I_D=24A,$V_{GS(on)}$=10V,R_G=10Ω,V_{DD}=10V		13		ns
Rise time	t_r			5		ns
Turn-off delay time	t_{off}			40		ns
Fall time	tf			9		ns
Total Gate Charge	Q_G	V_{DD} = 16 V V_{GS} = 10 V I_D = 48 A		21		nC
Gate to Source Charge	Q_{GS}			4.2		nC
Gate to Drain Charge	Q_{GD}			5		nC