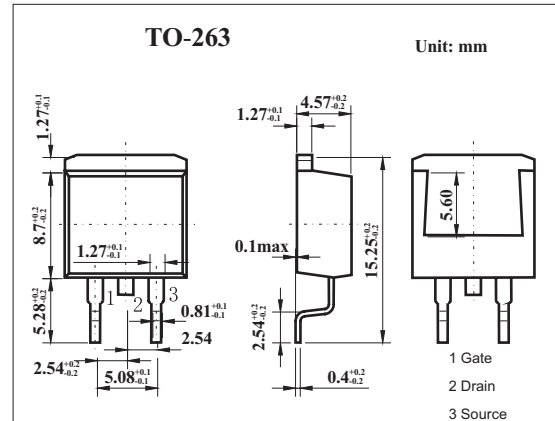# MOS Field Effect Transistor
2SK3353

■ Features

● Super low on-state resistance:

$R_{DS(on)1}$ = 9.5 mΩ MAX. (V_{GS} = 10 V, I_D = 41 A)

$R_{DS(on)2}$ = 14 mΩ MAX. (V_{GS} = 4 V, I_D = 41 A)

● Low C_{iss}: C_{iss} = 4650 pF TYP.

● Built-in gate protection diode

TO-263   Unit: mm

1 Gate
2 Drain
3 Source

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	60	V
Gate to source voltage	V_{GSS}(AC)	±20	V
Drain current	I_D	±82	A
	I_{dp} *	±328	A
Power dissipation T_A=25℃	P_D	1.5	W
T_C=25℃		95	
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}=60V,V_{GS}=0			100	μA
Gate leakage current	I_{GSS}	V_{GS}=±20V,V_{DS}=0			±10	μA
Gat cutoff voltage	$V_{GS(off)}$	V_{DS}=10V,I_D=1mA	2.5		3.5	V
Forward transfer admittance	$\lvert Y_{fs} \rvert$	V_{DS}=10V,I_D=41A	30	50		S
Drain to source on-state resistance	$R_{DS(on)}$	V_{GS}=10V,I_D=41A		7.5	9.5	mΩ
		V_{GS}=4V,I_D=41A		10.5	14	mΩ
Input capacitance	C_{iss}	V_{DS}=10V,V_{GS}=0,f=1MHZ		4650		pF
Output capacitance	C_{oss}			780		pF
Reverse transfer capacitance	C_{rss}			380		pF
Turn-on delay time	t_{on}	I_D=41A,$V_{GS(on)}$=10V,R_G=10Ω,V_{DD}=30V		100		ns
Rise time	t_r			1550		ns
Turn-off delay time	t_{off}			280		ns
Fall time	tf			420		ns
Total Gate Charge	Q_G	V_{DD} = 42V, V_{GS} = 10 V, I_D = 82A		90		nC
Gate to Source Charge	Q_{GS}			14		nC
Gate to Drain Charge	Q_{GD}			38		nC