MOS Field Effect Transistor
2SK3354

TO-263 Unit: mm

■ Features

● Super low on-state resistance:

$R_{DS(on)1}$ = 8.0 mΩ MAX. (V_{GS} = 10 V, I_D = 42 A)

$R_{DS(on)2}$ = 12 mΩ MAX. (V_{GS} = 4 V, I_D = 42 A)

● Low C_{iss}: C_{iss} = 6300 pF TYP.

● Built-in gate protection diode
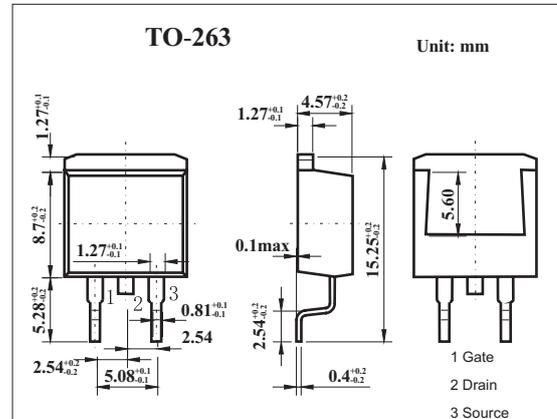
■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	60	V
Gate to source voltage	V_{GSS}(AC)	$\pm$20	V
Drain current	I_D	$\pm$83	A
	I_{dp} *	$\pm$332	A
Power dissipation T_A=25℃	P_D	1.5	W
T_C=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}=60V,V_{GS}=0			10	μA
Gate leakage current	I_{GSS}	V_{GS}=$\pm$20V,V_{DS}=0			$\pm$10	μA
Gat cutoff voltage	$V_{GS(off)}$	V_{DS}=10V,I_D=1mA	1.5	2.0	2.5	V
Forward transfer admittance	$\lvert Y_{fs} \rvert$	V_{DS}=10V,I_D=41A	35	59		S
Drain to source on-state resistance	$R_{DS(on)}$	V_{GS}=10V,I_D=42A		6.3	8.0	mΩ
		V_{GS}=4V,I_D=42A		8.0	12	mΩ
Input capacitance	C_{iss}	V_{DS}=10V,V_{GS}=0,f=1MHZ		6300		pF
Output capacitance	C_{oss}			1000		pF
Reverse transfer capacitance	C_{rss}			490		pF
Turn-on delay time	t_{on}	I_D=42A,$V_{GS(on)}$=10V,R_G=10Ω,V_{DD}=30V		100		ns
Rise time	t_r			1500		ns
Turn-off delay time	t_{off}			300		ns
Fall time	t_f			440		ns
Total Gate Charge	Q_G	V_{DD} = 48V, V_{GS} = 10 V, I_D = 83A		106		nC
Gate to Source Charge	Q_{GS}			20		nC
Gate to Drain Charge	Q_{GD}			30		nC