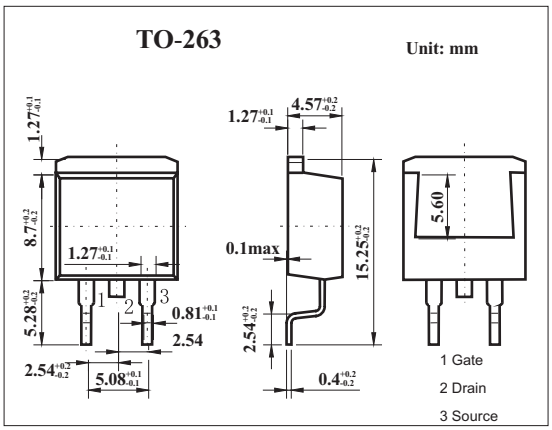
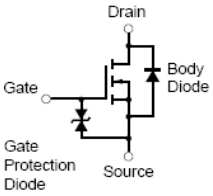
MOS Field Effect Transistor
2SK3294



Features

- Gate voltage rating ±30 V
- Low on-state resistance
  $R_{DS(on)}$ = 160 mΩ MAX. (V_{GS} = 10 V, I_D = 10 A)
- Low input capacitance
  C_{iss} = 1500 pF TYP. (V_{DS} = 10 V, V_{GS} = 0 V)
- Avalanche capability rated
- Built-in gate protection diode
- Surface mount device available



Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	250	V
Gate to source voltage	V_{GSS}	±30	V
Drain current	I_D	±20	A
	I_{dp} *	±60	A
Power dissipation Tc=25℃	P_D	100	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}=250V,V_{GS}=0			100	μA
Gate leakage current	I_{GSS}	V_{GS}=±30V,V_{DS}=0			±10	μA
Gat cutoff voltage	$V_{GS(off)}$	V_{DS}=10V,I_D=1mA	2.5		4.5	V
Forward transfer admittance	$\|Y_{fs}\|$	V_{DS}=10V,I_D=10A	6.0			S
Drain to source on-state resistance	$R_{DS(on)}$	V_{GS}=10V,I_D=10A		120	160	mΩ
Input capacitance	C_{iss}	V_{DS}=10V,V_{GS}=0,f=1MHZ		1500		pF
Output capacitance	C_{oss}			360		pF
Reverse transfer capacitance	C_{rss}			220		pF
Turn-on delay time	t_{on}	I_D=10A,$V_{GS(on)}$=10V,R_G=10Ω,V_{DD}=125V		24		ns
Rise time	t_r			78		ns
Turn-off delay time	t_{off}			110		ns
Fall time	t_f			60		ns