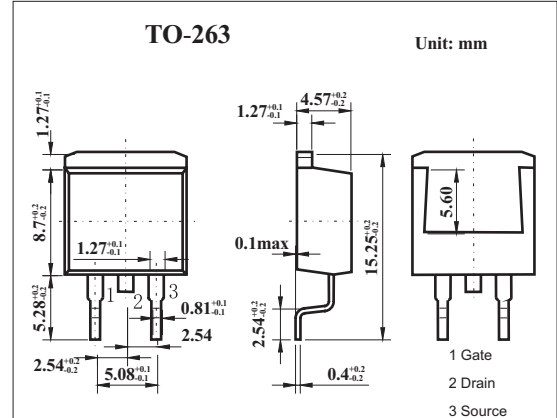
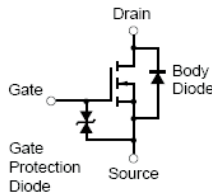


# 2SK3294

## Features

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



## Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain to source voltage	$V_{DS}$	250	V
Gate to source voltage	$V_{GS}$	$\pm 30$	V
Drain current	$I_D$	$\pm 20$	A
	$I_{dp}^*$	$\pm 60$	A
Power dissipation	PD	$T_c=25^\circ\text{C}$	100
		$T_A=25^\circ\text{C}$	1.5
Channel temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\*  $PW \leq 10 \mu\text{s}$ , Duty Cycle  $\leq 1\%$

## Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Drain cut-off current	$I_{DSS}$	$V_{DS}=250\text{V, } V_{GS}=0$			100	$\mu\text{A}$	
Gate leakage current	$I_{GSS}$	$V_{GS}=\pm 30\text{V, } V_{DS}=0$			$\pm 10$	$\mu\text{A}$	
Gate cutoff voltage	$V_{GS(off)}$	$V_{DS}=10\text{V, } I_D=1\text{mA}$	2.5		4.5	V	
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10\text{V, } I_D=10\text{A}$	6.0			S	
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=10\text{V, } I_D=10\text{A}$		120	160	$\text{m}\Omega$	
Input capacitance	$C_{iss}$	$V_{DS}=10\text{V, } V_{GS}=0, f=1\text{MHz}$		1500		pF	
Output capacitance	$C_{oss}$				360		pF
Reverse transfer capacitance	$C_{rss}$				220		pF
Turn-on delay time	$t_{on}$	$I_D=10\text{A, } V_{GS(on)}=10\text{V, } R_G=10\Omega, V_{DD}=125\text{V}$		24		ns	
Rise time	$t_r$				78		ns
Turn-off delay time	$t_{off}$				110		ns
Fall time	$t_f$				60		ns