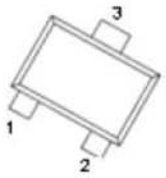
2SK3541 N-Channel MOSFET

FEATURES

- Low on-resistance
- Fast switching speed
- Low voltage drive makes this device ideal for portable equipment
- Drive circuits can be simple
- Parallel use is easy

SOT-723

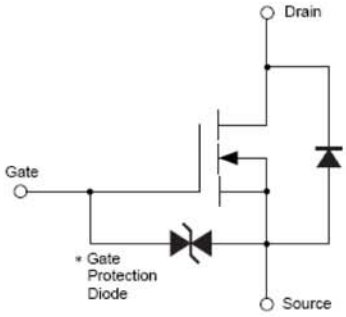
1. GATE
2. SOURCE
3. DRAIN



APPLICATIONS

Interfacing , Switching

Equivalent circuit



*A protection diode is included between the gate and the source terminals to protect the diode against static electricity when the product is in use. Use a protection circuit when the fixed voltages are exceeded.

Maximum ratings (T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-source voltage	V_{DS}	30	V
Gate-source voltage	V_{GS}	±20	
Continuous drain current	I_D	±100	mA
Power dissipation	P_D	0.15	W
Thermal resistance from junction to ambient	$R_{\theta JA}$	833	℃/W
Junction temperature	T_J	150	℃
Storage temperature	T_{stg}	-55 ~+150	

* Pw≤10μs ,Duty cycle≤1%

Electrical characteristics (T_a=25℃ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Drain-source breakdown voltage	$V_{(BR)\ DSS}$	V_{GS} = 0V, I_D =10μA	30			V
Gate-source leakage current	I_{GSS}	V_{DS} =0V, V_{GS} =±20V			±1	μA
Zero gate voltage drain current	I_{DSS}	V_{DS} =30V, V_{GS} =0V			1.0	μA
Gate threshold voltage	$V_{GS(th)}$	V_{DS} =3V, I_D =100μA	0.8		1.5	V
Static drain-source on-state resistance	$R_{DS(on)}$	V_{GS} =4V, I_D =10mA		5	8	Ω
		V_{GS} =2.5V, I_D =1mA		7	13	
Forward transconductance	g_{FS}	V_{DS} =3V, I_D =10mA	20			mS
Input capacitance	C_{iss}	V_{DS} =5V,V_{GS} =0V,f =1MHz		13		pF
Output capacitance	C_{oss}			9		
Reverse transfer capacitance	C_{rss}			4		
Turn-on delay time	$t_{d(on)}$	V_{GS}=5V,V_{DD}=5V, I_D =10mA R_L=500Ω,R_G=10Ω		15		ns
Rise time	t_r			35		
Turn-off delay time	$t_{d(off)}$			80		
Fall time	t_f			80		