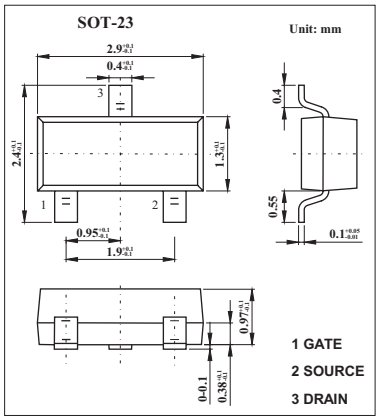
N-Channel Enhanceent Mode Field Effect Transistor 2N7002E



Features

- Low On-Resistance: $R_{DS(ON)}$
- Low Gate Threshold Voltage
- Low Input Capacitance
- Fast Switching Speed
- Low Input/Output Leakage

Absolute Maximum Ratings Ta=25℃

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	60	V
Drain-Gate Voltage $R_{GS} \leqslant 1.0\ m\Omega$	V_{DGR}	60	V
Gate-Source Voltage -Continuous	V_{GSS}	±20	V
Pulsed		±40	
Drain Current -Continuous	I_D	240	mA
Power Dissipation	P_D	300	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	℃W
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150	℃

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	V_{GS} = 0V, I_D = 10μA	60	70		V
Zero Gate Voltage Drain Current @ T_C = 25℃	I_{DSS}	V_{DS} = 60V, V_{GS} = 0V			1.0	μA
@ T_C = 125℃					500	
Gate-Body Leakage	I_{GSS}	V_{GS} = ±15V, V_{DS} = 0V			±10	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS} = V_{GS}, I_D = 250mA	1.0		2.5	V
Static Drain-Source On-Resistance @ Tj = 25℃	$R_{DS(ON)}$	V_{GS} = 10V, I_D = 250mA		1.6	3	Ω
		V_{GS} = 4.5V, I_D = 200mA		2.0	4	
On-State Drain Current	$I_{D(ON)}$	V_{GS} = 10V, V_{DS} = 7.5V	0.8	1.0		A
Forward Transconductance	g_{FS}	V_{DS} =10V, I_D = 0.2A	80			mS
Input Capacitance	C_{iss}	V_{DS} = 25V, V_{GS} = 0V,f = 1.0MHz		22	50	pF
Output Capacitance	C_{oss}			11	25	pF
Reverse Transfer Capacitance	C_{rss}			2.0	5.0	pF
Turn-On Delay Time	$t_{D(ON)}$	V_{DD} = 30V, I_D = 0.2A,R_L = 150Ω,V_{GEN} = 10V,R_{GEN} = 25Ω		7.0	20	ns
Turn-Off Delay Time	$t_{D(OFF)}$			11	20	ns

Marking

Marking	K7B