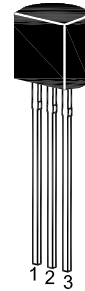
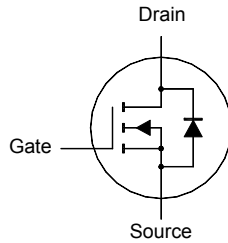


2N7000

Small Signal MOSFET

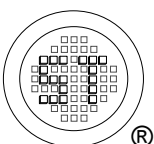
200 mA, 60 V
N-Channel



1. Source 2. Gate 3. Drain
TO-92 Plastic Package

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

Parameter	Symbol	Value	Unit	
Drain Source Voltage	V_{DSS}	60	V	
Drain-Gate Voltage ($R_{GS} = 1\text{ M}\Omega$)	V_{DGR}	60	V	
Gate-source Voltage	Continuous	V_{GS}	± 20	V
	Non-repetitive ($t_p \leq 50\text{ }\mu\text{s}$)	V_{GSM}	± 40	V
Drain Current	Continuous	I_D	200	mA
	Pulsed	I_{DM}	500	mA
Total Power Dissipation	P_D	350	mW	
Junction Temperature	T_j	150	$^\circ\text{C}$	
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$	



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ISO 9001 : 2008
Certificate No. 50713410



ISO 14001 : 2004
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ISO 9001 : 2008
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BS-OHSAS 18001 : 2007
Certificate No. 7116

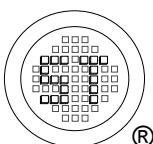


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2N7000

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

Parameter	Symbol	Min.	Max.	Unit
Drain-Source Breakdown Voltage at $V_{GS} = 0$, $I_D = 10\text{ }\mu\text{A}$	$V_{(BR)DSS}$	60	-	V
Zero Gate Voltage Drain Current at $V_{DS} = 48\text{ V}$, $V_{GS} = 0$	I_{DSS}	-	1	μA
Gate-Body Leakage Current at $V_{GS} = \pm 15\text{ V}$, $V_{DS} = 0$	$\pm I_{GSS}$	-	10	nA
Gate Threshold Voltage at $V_{DS} = V_{GS}$, $I_D = 1\text{ mA}$	$V_{GS(th)}$	0.8	3	V
Static Drain-Source On-Resistance at $V_{GS} = 10\text{ V}$, $I_D = 500\text{ mA}$ at $V_{GS} = 4.5\text{ V}$, $I_D = 75\text{ mA}$	$r_{DS(on)}$	- -	5 6	Ω
Drain-Source On-Voltage at $V_{GS} = 10\text{ V}$, $I_D = 500\text{ mA}$ at $V_{GS} = 4.5\text{ V}$, $I_D = 75\text{ mA}$	$V_{DS(on)}$	- -	2.5 0.45	V
On-State Drain Current at $V_{GS} = 4.5\text{ V}$, $V_{DS} = 10\text{ V}$	$I_{D(on)}$	75	-	mA
Forward Transconductance at $V_{DS} = 10\text{ V}$, $I_D = 200\text{ mA}$	g_{fs}	100	-	mS
Input Capacitance at $V_{DS} = 25\text{ V}$, $V_{GS} = 0$, $f = 1\text{ MHz}$	C_{iss}	-	60	pF
Output Capacitance at $V_{DS} = 25\text{ V}$, $V_{GS} = 0$, $f = 1\text{ MHz}$	C_{oss}	-	25	pF
Reverse Transfer Capacitance at $V_{DS} = 25\text{ V}$, $V_{GS} = 0$, $f = 1\text{ MHz}$	C_{rss}	-	5	pF
Turn-On Delay Time at $V_{DD} = 15\text{ V}$, $I_D = 500\text{ mA}$, $R_G = 25\text{ }\Omega$, $R_L = 30\text{ }\Omega$, $V_{gen} = 10\text{ V}$	t_{on}	-	10	ns
Turn-Off Delay Time at $V_{DD} = 15\text{ V}$, $I_D = 500\text{ mA}$, $R_G = 25\text{ }\Omega$, $R_L = 30\text{ }\Omega$, $V_{gen} = 10\text{ V}$	t_{off}	-	10	ns



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 ISO14001 : 2004 Certificate No. 7116
 ISO 9001 : 2008 Certificate No. 50713410
 BS-OHSAS 18001 : 2007 Certificate No. 7116
 IECQ QC 080000 Certificate No. PRC-HSPM-1481