N Channel Small Signal MOSFET **2N7002**

100mA

SOT-23
1 Gate
2 Source
3 Drain

- DRIVES SWITCHS, RELAYS, SOLENOIDS, LAMPS, DISPLAYS, ETC.
- LOW OFFSET VOLTAGE
- LOW VOLTAGE OPERATION
- EASILY DRIVEN WITHOUT BUFFER

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS（Ta=25℃）

PARAMETERS	SYMBOL	MIN	MAX	UNIT	CONDITION
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	60		Vdc	V_{GS}=0, I_D=10uA
Zero Gate Voltage Drain Current	I_{DSS}		1.0 1.0	uA mA	V_{DS}=48V, V_{GS}=0 V_{DS}=48V, V_{GS}=0, Tj=125℃
Gate-Body Leakage Current, Forward	I_{GSSF}		-10	nA	V_{GSF}=15V, V_{DS}=0
Gate Threshhold Voltage	$V_{GS(th)}$	0.8	3.0	V	V_{DS}=V_{GS}, I_D=1.0A
Drain-Source On-Resistance	$R_{DS(on)}$		7.5 7.5	Ohm Ohm	V_{GS}=10V, I_D=0.5A V_{GS}=4.5V, I_D=75mA
Drain-Source On-Voltage	$V_{DS(on)}$		2.5 0.45	V	V_{GS}=10V, I_D=0.5A V_{GS}=4.5V, I_D=75mA
On-State Drain Current	$I_{d(on)}$	75		mA	V_{GS}=4.5V, V_{DS}=10V
Input Capacitance	C_{iss}		60	pF	V_{DS}=25V, V_{GS}=0, f=1 MHz
Output Capacitance	C_{oss}		25	pF	V_{DS}=25V, V_{GS}=0, f=1 MHz
Reverse Transfer Capacitance	C_{rss}		5	pF	V_{DS}=25V, V_{GS}=0, f=1 MHz
Turn-On Delay Time	t_{on}		10	nS	
Turn-Off Delay Time	t_{off}		10	nS	
Power Dissipation	Pc		0.35	W	
Junction Temperature	Tj		125	℃	
Storage Temperature	Tstg	-55	125	℃	

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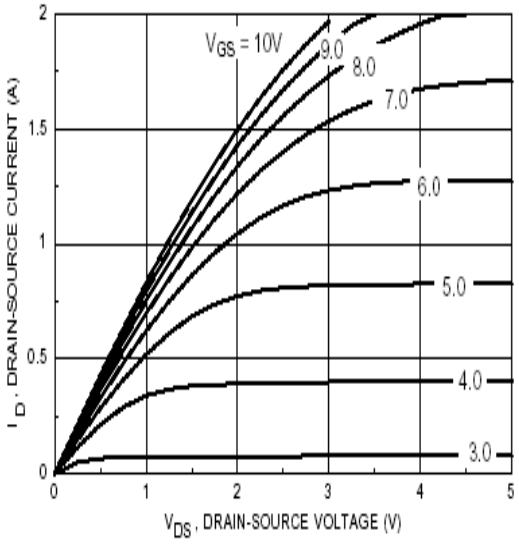
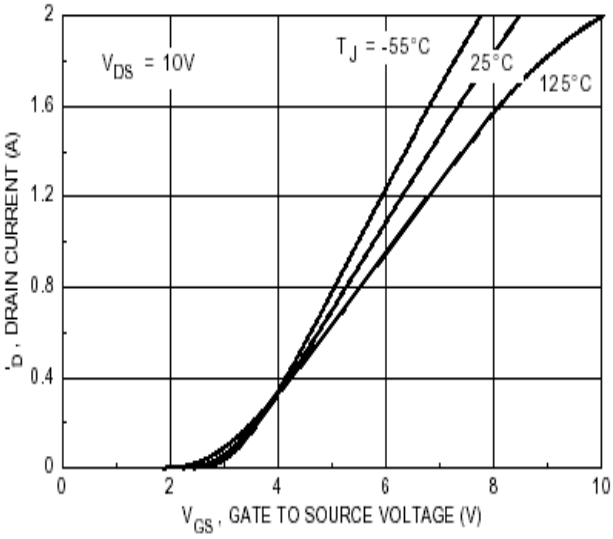
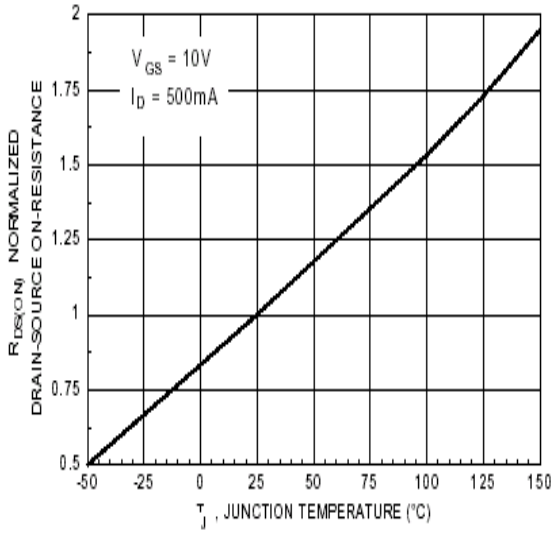
Output Characteristics



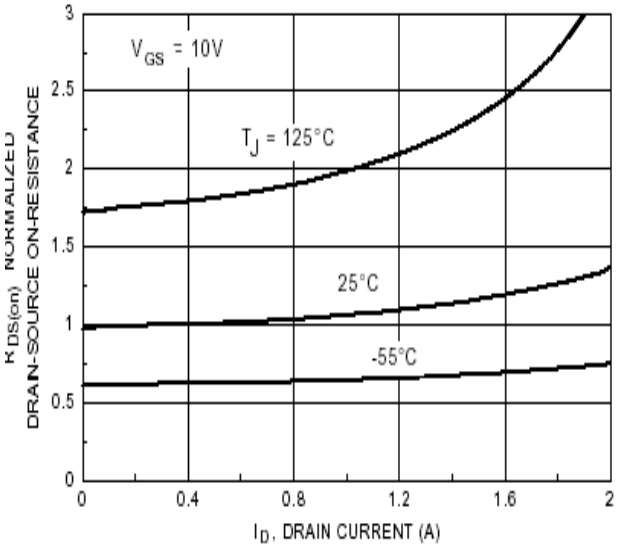
Transfer Characteristics



On Resistance VS. Temperature



Static Drain-source On Resistance



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