



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-23 Plastic-Encapsulate Transistors

2N7002 MOSFET (N-Channel)

FEATURES

Power dissipation

$$P_D : 0.225W (T_{amb}=25^{\circ}C)$$

Drain current

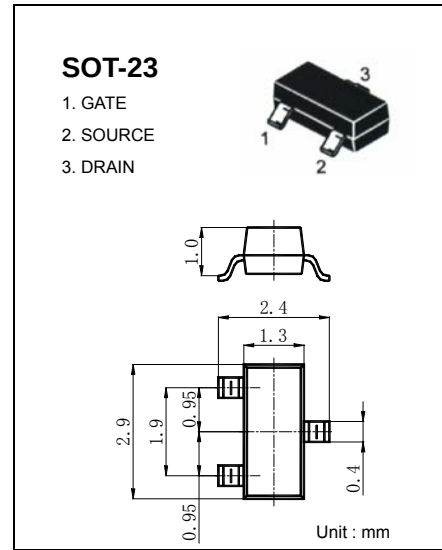
$$I_D: 115mA$$

Drain-Source voltage

$$V_{DS}: 60V$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^{\circ}C \text{ to } +150^{\circ}C$$



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0V, I_D=10\mu A$	60			V
		$V_{GS}=0V, I_D=3mA$	60			
Gate-Threshold Voltage	$V_{th(GS)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	1	1.5	2.5	
Gate-body Leakage	I_{GSS}	$V_{DS}=0V, V_{GS}=\pm 25V$			± 100	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=60V, V_{GS}=0V$			1	μA
		$V_{DS}=60V, V_{GS}=0V, T_J=125$			500	
On-state Drain Current	$I_{D(ON)}$	$V_{GS}=10V, V_{DS}=7V$	500			mA
Drain-Source On-Resistance	$r_{DS(on)}$	$V_{GS}=10V, I_D=500mA$		1.5	7.5	Ω
		$V_{GS}=5V, I_D=50mA$		2.0	7.5	
Forward Transconductance	g_{fs}	$V_{DS}=10V, I_D=200mA$	80	300		ms
Diode Forward Voltage	V_{SD}	$I_S=115mA, V_{GS}=0V$		0.85	1.2	V
Input Capacitance	C_{iss}	$V_{DS}=25V, V_{GS}=0V, f=1MHz$		25	50	pF
Output Capacitance	C_{oss}			6	25	
Reverse Transfer Capacitance	C_{rss}			1.2	5	

SWITCHING TIME

Turn-on Time	$t_{d(on)}$	$V_{DD}=25V, R_L=50\Omega$ $I_D=500mA, V_{GEN}=10V$ $R_G=25\Omega$		7.5	20	ns
Turn-off Time	$t_{d(off)}$			7.5	20	