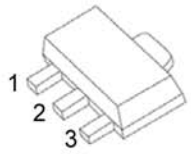
2N7002X MOSFET(N-Channel)

FEATURES

- High density cell design for low $R_{DS(on)}$
- Voltage controlled small signal switch
- Rugged and reliable
- High saturation current capability

SOT-89



1.GATE
2. DRAIN
3. SOURCE

MARKING:K72

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{DS}	Drain-Source Voltage	60	V
I_D	Drain Current	115	mA
P_D	Power Dissipation	500	mW
T_J	Junction Temperature	150	℃
T_{STG}	Storage Temperature	-55~+150	℃
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	2θ	℃W

ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-source breakdown voltage	$V_{(BR)DSS}$	V_{GS}=0V,I_D=250μA	60			V
Gate-threshold voltage*	$V_{(GS)th}$	V_{DS}=V_{GS}, I_D=250μA	1		2	V
Gate-body leakage	I_{GSS}	V_{DS}=0V, V_{GS}= ±15V			±80	nA
Zero gate voltage drain current	I_{DSS}	V_{DS}=60V, V_{GS}=0V			80	nA
Drain-source on-resistance*	$R_{DS(on)}$	V_{GS}=10V, I_D=250mA	1	1.5	7.2	Ω
		V_{GS}=4.5V, I_D=200mA	1	2.0	7.2	Ω
Forward tranconductance*	g_{fs}	V_{DS}=10V, I_D=200mA	80		500	ms
Diode forward voltage*	V_{SD}	I_S=115mA,V_{GS}=0V	0.55		1.2	V
Turn-on time**	$t_{d(on)}$	V_{DD}=25V,R_L=50Ω ,I_D=500mA, V_{GEN}=10V,R_G=25Ω			20	nS
Turn-off time**	$t_{d(off)}$				40	nS
Input capacitance**	C_{iss}	V_{DS}=25V, V_{GS}=0V,f=1MHz			50	pF
Output capacitance**	C_{oss}				25	pF
Reverse transfer capacitance**	C_{rss}				5	pF

* Pulse Test: Pulse width ≤300μs,duty cycle≤2%.

** These parameters have no way to verify.