

# **SOT-23 Plastic-Encapsulate Transistors**

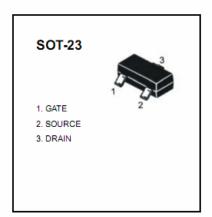
MOSFET(N-Channel)

#### **FEATURES**

High density cell design for low RDS(ON) Voltage cotrolled small signal switch Rugged and reliable High saturation current capability

MARKING:7002





**MAXIMUM RATINGS** (TA=25°C unless otherwise noted)

Symbol (符号)	Parameter (参数名称)	Value (额定值)	Units (单位)	
Vos	Drain-Source voltage	60	V	
lo	Drain current	115	mA	
<b>P</b> D	Power Dissipation	225	mW	
Tj	Junction Temperature	150	$^{\circ}$	
Tstg	Storage Temperature	-55-150	$^{\circ}$	

## **ELECTRICAL CHARACTERISTICS** (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Drain-Source Breakdown Voltage	V(BR)DSS	Vgs=0V,ID=250uA	60			V
Gate-Threshold Voltage	Vth(GS)	VDS= VGS, ID=250 uA	1	1.7	2.5	V
Gate-body Leakage	Igss	VDS=0V, VGS=±20V			±100	nA
Zero Gate Voltage Drain Current	IDSS	VDS=60V, VGS=0V			1	uA
On-state Drain Current	ID(ON)	VDS=7V, VGS=10V	500			mA
Drain Course On Besistance		Vgs=10V, ID=100mA		1	2	Ω
Drain-Source On-Resistance	rds(on)	Vgs=4. 5V, ID=50mA		1.1	3	Ω
Forward Trans conductance	gfs	VDS=10V, ID=200mA	80		500	ms
Ducin course on walkers	\/= c (c)	Vgs=10V, ID=500mA	0.5		3.75	V
Drain-source on-voltage	VDS(ON)	Vgs=5V, ID=50mA	0.05		0.375	٧
Diode Forward Voltage	VsD	Is=115mA ,Vgs=0V	0.55		1.2	V
nput Capacitance Ciss					50	
Output Capacitance	Coss	VDS=25V, VGS=0V, f=1MHz			25	pF
Reverse Transfer Capacitance	Crss				5	

### **SWITCHING TIME**

Turn-on Time	td(on)	$\begin{array}{c} \text{Vdd=}25\text{V, RL=}50~\Omega\\ \text{Id=}500\text{mA, Vgen=}10\text{V,}\\ \text{RG=}25~\Omega \end{array}$		20	ns
Turn-off Time	td(off)			40	ns



# **Typical Characteristics**

