



1. GATE
2. SOURCE
3. DRAIN

Features

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

Marking: 7002 / 702

MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{DS}	Drain-Source voltage	60	V
I_D	Drain Current	115	mA
P_D	Power Dissipation	225	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55-150	$^\circ\text{C}$

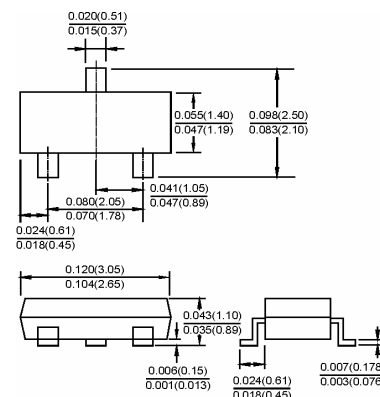
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0\text{ V}, I_D=10\ \mu\text{A}$	60			V
Gate-Threshold Voltage	$V_{th(GS)}$	$V_{DS}=V_{GS}, I_D=250\ \mu\text{A}$	1		2.5	
Gate-body Leakage	I_{GSS}	$V_{DS}=0\text{ V}, V_{GS}=\pm 25\text{ V}$			± 80	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=60\text{ V}, V_{GS}=0\text{ V}$			80	nA
On-state Drain Current	$I_{D(ON)}$	$V_{GS}=10\text{ V}, V_{DS}=7\text{ V}$	500			mA
Drain-Source On-Resistance	$r_{DS(on)}$	$V_{GS}=10\text{ V}, I_D=500\text{mA}$	1		7.5	Ω
		$V_{GS}=5\text{ V}, I_D=50\text{mA}$	1		7.5	
Forward Trans conductance	g_{fs}	$V_{DS}=10\text{ V}, I_D=200\text{mA}$	80		500	ms
Drain-source on-voltage	$V_{DS(on)}$	$V_{GS}=10\text{V}, I_D=500\text{mA}$	0.5		3.75	V
		$V_{GS}=5\text{V}, I_D=50\text{mA}$	0.05		0.375	V
Diode Forward Voltage	V_{SD}	$I_S=115\text{mA}, V_{GS}=0\text{ V}$	0.55		1.2	V
Input Capacitance	C_{iss}	$V_{DS}=25\text{V}, V_{GS}=0\text{V}, f=1\text{MHz}$			50	pF
Output Capacitance	C_{OSS}				25	
Reverse Transfer Capacitance	C_{rSS}				5	

SWITCHING TIME

Turn-on Time	$t_{d(on)}$	$V_{DD}=25\text{ V}, R_L=50\Omega$ $I_D=500\text{mA}, V_{GEN}=10\text{ V}$			20	ns
Turn-off Time	$t_{d(off)}$	$R_G=25\ \Omega$			40	

SOT-23



Dimensions in inches and (millimeters)

Typical characteristics

