

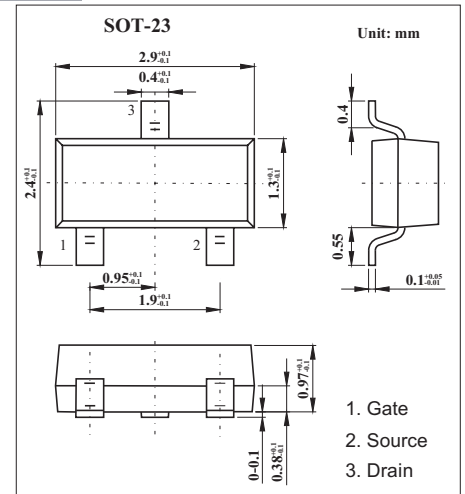
## SOT-23 Plastic-Encapsulate MOSFETS

### Features

- $I_D = -0.13\text{ A}$
- $V_{DS} (V) = -50\text{ V}$
- $R_{DS(ON)} \leq 10\ \Omega$  ( $V_{GS} = -5\text{ V}$ )
- P-Channel Enhancement Mode MOSFET

### MECHANICAL DATA

- Case style: SOT-23 molded plastic
- Mounting position: any



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DSS}$	-50	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Drain Current *	$I_D$	-130	mA
		-520	
Total Power Dissipation *	$P_d$	300	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	°C/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-55 to +150	°C

\* Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch;

## MOSFET ELECTRICAL CHARACTERISTICS $T_a=25\text{ }^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditons	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$B_{VDSS}$	$V_{GS} = 0\text{ V}, I_D = -250\ \mu\text{A}$	-50			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = -50\text{ V}, V_{GS} = 0\text{ V}, T_J = 25\text{ }^\circ\text{C}$			-15	$\mu\text{A}$
		$V_{DS} = -50\text{ V}, V_{GS} = 0\text{ V}, T_J = 125\text{ }^\circ\text{C}$			-60	$\mu\text{A}$
Gate-Body Leakage	$I_{GSS}$	$V_{GS} = \pm 20\text{ V}, V_{DS} = 0\text{ V}$			$\pm 10$	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -1\text{ mA}$	-0.8		-2.0	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS} = -5\text{ V}, I_D = -100\text{ mA}$			10	$\Omega$
Forward Transconductance	$g_{FS}$	$V_{DS} = -25\text{ V}, I_D = -0.1\text{ A}$	0.05			S
Input Capacitance	$C_{iss}$	$V_{DS} = -25\text{ V}, V_{GS} = 0\text{ V}, f = 1.0\text{ MHz}$			45	pF
Output Capacitance	$C_{oss}$				25	pF
Reverse Transfer Capacitance	$C_{rss}$				12	pF
Turn-On Delay Time	$t_{d(ON)}$	$V_{DD} = -30\text{ V}, I_D = -0.27\text{ A},$		10		ns
Turn-Off Delay Time	$t_{d(OFF)}$	$R_{GEN} = 50\ \Omega, V_{GS} = -10\text{ V}$		18		ns