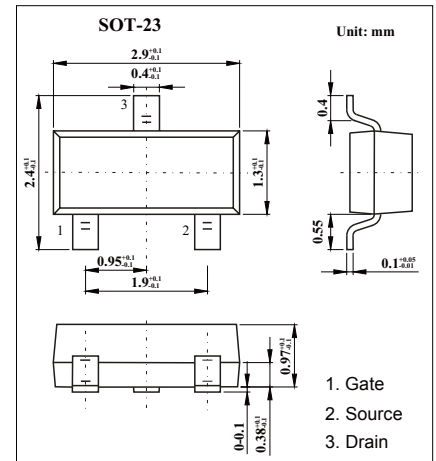


SOT-23 Plastic-Encapsulate MOSFETS
Features

- VDS=-30V, rDS(on)=0.080Ω, VGS=-10V, ID=-3A
- VDS=-30V, rDS(on)=0.140Ω, VGS=-4.5V, ID=-2.5A
- P-Channel 30-V (D-S) 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 _{DS}	-30	V
Gate-Source Voltage	V _{GS}	±20	V
Continuous Drain Current T _A =25°C T _A =70°C	I _D	-3 -2.5	A
Pulsed Drain Current *	I _{DM}	-12	A
Power Dissipation T _A =25°C T _A =70°C	P _D	1.25 0.8	W
Maximum Junction-to-Ambient *	R _{thJA}	130	°C/W
Junction Temperature, Storage Temperature	T _J , T _{stg}	-55 to 150	°C

* . Pulse width limited by maximum junction temperature

MOSFET ELECTRICAL CHARACTERISTICS T_a=25 °C unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	V _{GS} = 0 V, I _D = -10 iA	-30			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = -24 V, V _{GS} = 0 V			-1	μA
		V _{DS} = -24 V, V _{GS} = 0 V, T _J = 55 °C			-10	
Gate-Body Leakage	I _{GSS}	V _{DS} = 0 V, V _{GS} = ±20 V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = -250 iA	-1.0			V
Drain-Source On-State Resistance *	R _{DS(on)}	V _{GS} = -10 V, I _D = -3 A		0.064	0.080	Ω
		V _{GS} = -4.5 V, I _D = -2.5 A		0.103	0.140	
On-State Drain Current	I _{D(on)}	V _{DS} ≤ -5 V, V _{GS} = -10 V	-6			A
Forward Transconductance *	g _{fs}	V _{DS} = -10 V, I _D = -3 A		4.5		S
Input Capacitance	C _{iss}	V _{DS} = -15 V, V _{GS} = 0, f = 1 MHz		565		pF
Output Capacitance	C _{oss}			126		
Reverse Transfer Capacitance	C _{rss}			75		
Total Gate Charge	Q _g	V _{DS} = -15V, V _{GS} = -10 V, I _D = -3A		10	15	nC
Gate-Source Charge	Q _{gs}			1.9		
Gate-Drain Charge	Q _{gd}			2		
Turn-On Time	t _{d(on)}		V _{DD} = -15V, R _L = 15Ω, I _D = -1A, V _{GEN} = -10V, R _G = 6Ω		10	
	t _r			9	2	
Turn-Off Time	t _{d(off)}			27	90	
	t _f			7	1	
Continuous Source Current (diode conduction)	I _S		-1.25	6	A	
Diode Forward Voltage *	V _{SD}	I _S = -1.25 A, V _{GS} = 0 V			-1.2	V

* Pulse test: PW ≤ 300μs duty cycle ≤ 2%.