

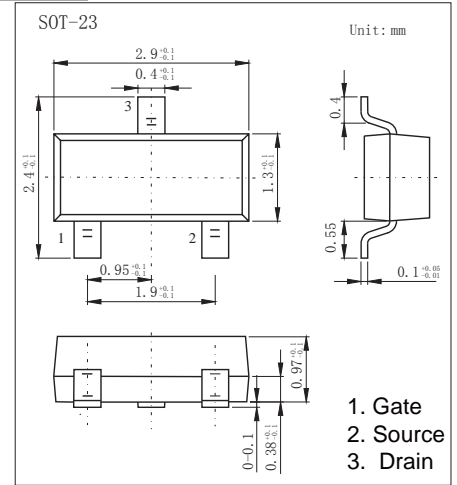
SOT-23 Plastic-Encapsulate MOSFETS

Features

- VDS (V) = -20V
- RDS(ON) < 0.052 Ω (VGS = -4.5V)
- RDS(ON) < 0.071 Ω (VGS = -2.5V)
- RDS(ON) < 0.108 Ω (VGS = -1.8V)
- P-Channel MOSFET

MECHANICAL DATA

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



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Drain-source voltage Gate-source voltage	VDS	-20	V
	VGS	±10	V
Continuous drain current	ID	TA=25°C	-3.5
		TA=70°C	-2.8
Pulsed drain current	IDM	-12	A
Power dissipation	PD	TA=25°C	1.25
		TA=70°C	0.8
Thermal Resistance.Junction-to-Ambient	RθJA	130	°C/W
Operating junction and storage temperature range	Tj,Tstg	-55 to +150	°C

MOSFET ELECTRICAL CHARACTERISTICS Ta=25 °C unless otherwise specified

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain-source breakdown voltage	Vbss	Vgs = 0 V, Id = -250µA	-20			V
Gate threshold voltage	VGS(th)	Vbs = Vgs, Id = -250 µA	-0.45		-0.8	V
Zero gate voltage drain current	Ibss	Vbs = -20 V, Vgs = 0 V			-1	µA
		Vbs = -20V, Vgs = 0 V, Tj = 55 °C			-10	
Gate-body leakage	Igss	Vbs = 0 V, Vgs = ±10 V			±100	nA
Drain-source on-state resistance	rDS(on)	Vgs = -4.5 V, Id = -3.5 A		0.044	0.052	Ω
		Vgs = -2.5 V, Id = -3.0 A		0.060	0.071	
		Vgs = -2 V, Id = -2.0 A		0.087	0.108	
On-state drain current	Id(on)	Vbs ≤ -5 V, Vgs = -4.5 V	-6			A
		Vbs ≤ -5 V, Vgs = -2.5 V	-3			
Forward transconductance	gfs	Vbs = -5 V, Id = -3.5 A		8.5		S
Input capacitance *	Ciss	Vbs = -10V, Vgs = 0, f = 1 MHz		1245		pF
Output capacitance *	Coss			375		
Reverse transfer capacitance *	Crss			210		
Total gate charge *	Qg	Vbs = -10V, Vgs = -4.5 V, Id = -3.5 A		10	15	nC
Gate-source charge *	Qgs			2		
Gate-drain charge *	Qgd			2		
Turn-on Delay time	td(on)	VDD = -5V, RL = 4Ω, Id = -1A, VGEN = -4.5V, RG = 6Ω		13	20	ns
Turn-on Rise time	tr			25	40	
Turn-off Dealy time	td(off)			55	80	
Turn-off Fall time	tf			19	35	
Continuous source current (diode conduction) *	Is			-1.6		A
Diode forward voltage	VSD	Is = -1.6 A, Vgs = 0 V			-1.2	V

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

Marking	A5
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