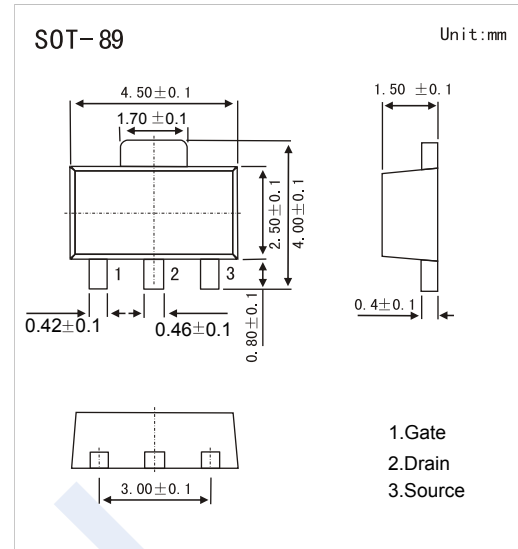
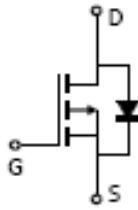


P-Channel MOSFET

A9451

■ Features

- $V_{DS} (V) = -20V$
- $I_D = -2.3A$ ($V_{GS} = \pm 12V$)
- $R_{DS(ON)} < 0.135 \Omega$ ($V_{GS} = -4.5V$)
- $R_{DS(ON)} < 0.240 \Omega$ ($V_{GS} = -2.5V$)
- Marking: A9451



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-20	V
Gate-Source Voltage	V_{GS}	± 12	
Continuous Drain Current	I_D	-2.3	A
Power Dissipation	P_D	0.5	W
Thermal Resistance Junction- to-Ambient	R_{thJA}	250	$^\circ C/W$
Junction Temperature	T_J	150	$^\circ C$
Junction Storage Temperature Range	T_{stg}	-55 to +150	

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	$I_D = 10 \mu A, V_{GS} = 0V$	-20			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -20V, V_{GS} = 0V$			-1	μA
Gate-Body Leakage Current	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 12V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250mA$	-0.5		-1.50	V
Static Drain-Source On-Resistance ¹	$R_{DS(on)}$	$V_{GS} = -4.5V, I_D = -2.3A$			0.135	Ω
		$V_{GS} = -2.5V, I_D = -1.0A$			0.240	
Forward Transconductance ¹	g_{FS}	$V_{DS} = -5V, I_D = -2.3A$	2.3			S
Input Capacitance	C_{iss}	$V_{GS} = 0V, V_{DS} = -20V, f = 1MHz$			430	pF
Output Capacitance	C_{oss}			100		
Reverse Transfer Capacitance	C_{rss}			35		
Turn-On Delay Time ^{1,2}	$t_{d(on)}$	$V_{GS} = -5V, V_{DS} = -10V, R_L = 3.3 \Omega, I_D = -1A, R_{GEN} = 10 \Omega$		9		ns
Turn-On Rise Time ²	t_r			25		
Turn-Off Delay Time ²	$t_{d(off)}$			20		
Turn-Off Fall Time ²	t_f			10		
Maximum Body-Diode Continuous Current	I_S				-1	A
Diode Forward Voltage ¹	V_{SD}	$I_S = -1A, V_{GS} = 0V$			-1.6	V

NOTES: 1. Pulse Test ; Pulse Width $\leq 300 \mu s$, Duty Cycle $\leq 2\%$.

2. These parameters have no way to verify.

P-Channel MOSFET

A9451

Typical Characteristics

