

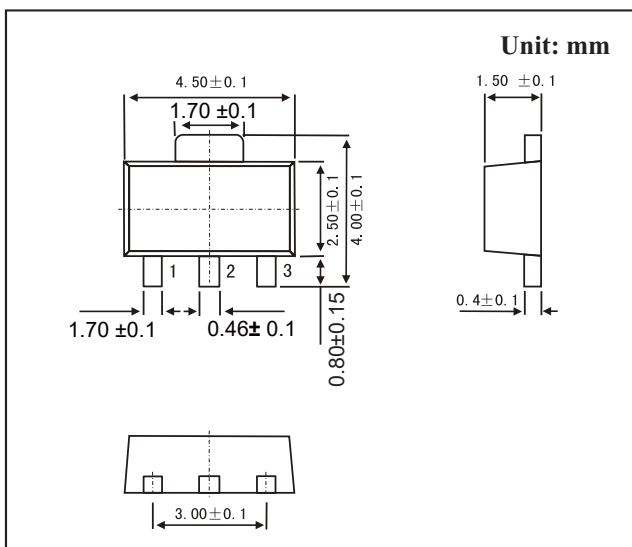
SOT-89-3L Plastic-Encapsulate MOSFETS

FEATURE

- P-Channel 20-V(D-S) MOSFET

MECHANICAL DATA

- Case style:SOT-89-3Lmolded plastic□
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	-20	V
Continuous Gate-Source Voltage	V_{GS}	± 12	
Continuous Drain Current	I_D	-2.3	A
Power Dissipation	P_D	0.5	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	250	°C/W
Operating Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ +150	

$V_{(BR)DSS}$	$R_{DS(on)MAX}$	I_D
-20 V	135mΩ@-4.5V	-2.3A
	240mΩ@-2.5V	

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Off characteristics						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D =10μA	-20			V
Gate-body leakage	I _{GSS}	V _{DS} =0V, V _{GS} =±12V			±100	nA
Zero gate voltage drain current	I _{DSS}	=-20V, V _{GS} =0V			-1.0	μA
On characteristics						
Gate-threshold voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-0.25mA	-0.50	-0.7	-1.50	V
Static drain-source on-resistance (note 1)	R _{DS(on)}	V _{GS} =-4.5V, I _D =-2.3A		0.058	0.135	Ω
		V _{GS} =-2.5V, I _D =-1.0A		0.075	0.240	
Forward transconductance (note 1)	g _{fs}	V _{DS} =-5V, I _D =-2.3A	2.3			S
Dynamic characteristics (note 2)						
Input capacitance	C _{iss}	V _{DS} =-20V,V _{GS} =0V, f=1MHz			430	pF
Output capacitance	C _{oss}			100		
Reverse transfer capacitance	C _{rss}			35		
Switching characteristics						
Turn-on delay time (note 1,2)	t _{d(on)}	V _{GS} =-5V, V _{DS} =-10V, I _D =-1A,R _G =3.3Ω, R _D =10Ω		9		ns
Rise time (note 2)	t _r			25		
Turn-off delay time (note 2)	t _{d(off)}			20		
Fall time (note 2)	t _f			10		
Drain-source body diode characteristics						
Body diode forward voltage (note 1)	V _{SD}	I _S =-1A, V _{GS} = 0V			-1.6	V

No tes:

1. Pulse Test ; Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$.
2. These parameters have no way to verify.

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

