

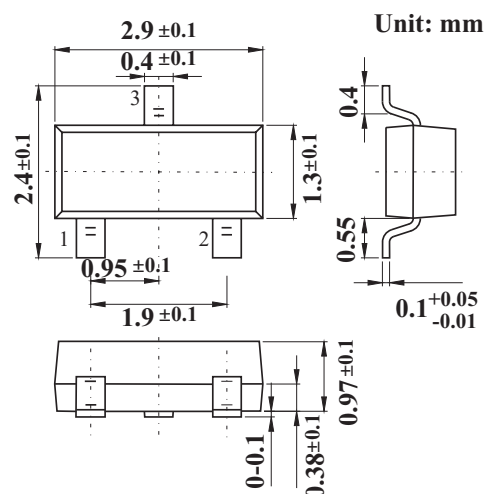
SOT-23 Plastic-Encapsulate MOSFETS

FEATURE

- High dense cell design for extremely low $R_{DS(ON)}$.
- Exceptional on-resistance and maximum DC current capability
- P-Channel Enhancement Mode Field Effect Transistor

MECHANICAL DATA

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



$V_{(BR)DSS}$	$R_{DSS(on)} MAX$	I_D
-30 V	65mΩ@-10V	-4.2A
	75mΩ@-4.5V	
	90mΩ@-2.5V	

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	-30	V
Gate-Source Voltage	V_{GS}	±12	V
Continuous Drain Current	I_D	-4.2	A
Power Dissipation	P_D	350	mW
Thermal Resistance from Junction to Ambient (t<5s)	$R_{\theta JA}$	357	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55~+150	°C

MOSFET ELECTRICAL CHARACTERISTICS Ta=25 °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 =-250μA	-30			V
Zero gate voltage drain current	I _{DSS}	V _{DS} =-24V,V _{GS} = 0V			-1	μA
Gate-source leakage current	I _{GSS}	V _{GS} =±12V, V _{DS} = 0V			±100	nA
On characteristics						
Drain-source on-resistance (note 1)	R _{DS(on)}	V _{GS} =-10V, I _D =-4.2A		50	65	mΩ
		V _{GS} =-4.5V, I _D =-4A		60	75	mΩ
		V _{GS} =-2.5V,I _D =-1A		75	90	mΩ
Forward tranconductance (note 1)	g _{FS}	V _{DS} =-5V, I _D =-5A	7			S
Gate threshold voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-250μA	-0.7	-0.9	-1.3	V
Dynamic characteristics (note 2)						
Input capacitance	C _{iss}	V _{DS} =-15V,V _{GS} =0V,f =1MHz		954		pF
Output capacitance	C _{oss}			115		pF
Reverse transfer capacitance	C _{rss}			77		pF
Switching characteristics (note 2)						
Turn-on delay time	t _{d(on)}	V _{GS} =-10V,V _{DS} =-15V, R _L =3.6Ω,R _{GEN} =6Ω			6.3	ns
Turn-on rise time	t _r				3.2	ns
Turn-off delay time	t _{d(off)}				38.2	ns
Turn-off fall Time	t _f				12	ns
Drain-source diode characteristics and maximum ratings						
Diode forward voltage (note 1)	V _{SD}	I _S =-1A,V _{GS} =0V			-1	V

Note :

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

