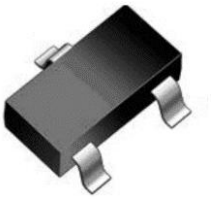
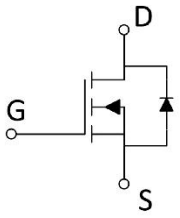
N-Channel Enhancement Mode MOSFET

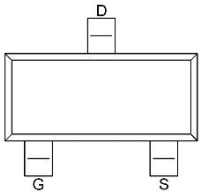
Features

- V_{DS}=30V,I_D=5.8A
- $R_{DS(ON)}$=30mΩ（TYP.）V_{GS}=10V
- Reliable and Rugged
- Avalanche Rated
- Low On-Resistance
-

SOT23-3L







Applications

- Load Switch
- Power management in portable/desktop PCs
- DC/DC conversiong

Ordering Information

Device	package	Device Marking	Package Qty.
JMTL3400L	SOT-23	X0/R0	3000/PCS

Absolute Maximum Ratings (T$_C$=25℃,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	5.8	A
Pulesd Drain Current	I_{DM}	30	A
Maximum Power Dissipation	P_D	0.9	W
Operating,Storage Temperature Range	T_J,T_{STG}	-55~150	℃
Thermal Resistance,Junction-to-Ambient	$R_{\theta JA}$	357	℃/ W

Electrical Characteristics

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	BV_{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
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}= V_{GS},I_D=250μA	0.6	0.85	1.4	V
Drain-Source On-stage Resistance	$R_{DS(ON)}$	V_{GS}=10V,I_D=5.8A	-	20	30	mΩ
		V_{GS}=4.5V,I_D=5A	-	29	48	
Body Diode Forward Voltage	V_{SD}	V_{GS}=0V,I_{SD}=1A	-	-	1	V

Dynamic Characteristics

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Input capacitance	C_{iss}	V_{DS}=15V	-	-	820	pF
Output capacitance	C_{oss}	V_{GS}=0V	-	118	-	
Reverse transfer capacitance	C_{rss}	f=1MHz	-	85	-	
Gate Resistance	R_g	f=1MHz	-	1.5	-	Ω
Total Gate Charge	Q_g	V_{DS}=15V	-	4.34	-	nC
Gate Source Charge	Q_{gs}	V_{GS}=4.5V	-	0.6	-	
Gate Drain Charge	Q_{gd}	I_D=5.8A	-	1.38	-	
Turn-on delay Time	$t_{d(on)}$	V_{GS}=10V	-	-	6.5	ns
Rise time	t_r	V_{DS}=15V	-	3.1	-	
Turn-off delay Time	$t_{d(off)}$	R_L=2.7Ω	-	15.1	-	
Fall time	t_f	R_G=3Ω	-	2.7	-	