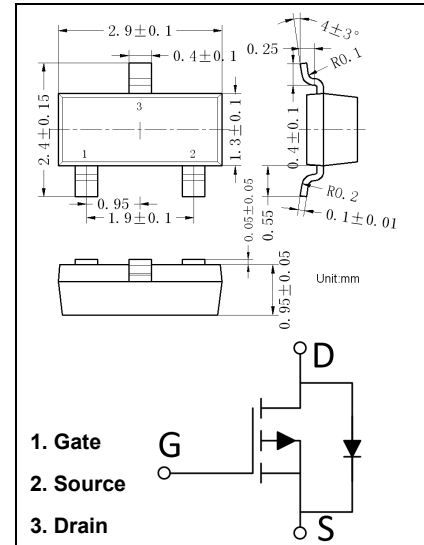


SOT-23 Plastic-Encapsulate MOSFETS

LJ3407 P-Channel 30-V(D-S) MOSFET

General Description

The LJ407 uses advanced trench technology to provide excellent $R_{DS(on)}$ with low gate charge. This device is suitable for use as a load switch or in PWM applications.



Maximum ratings (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{DS}	Drain-Source Voltage	-30	V
V_{GS}	Gate-Source Voltage	±20	
I_D	Continuous Drain Current	-4.1	A
P_D	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient($t \leq 5s$)	357	°C/W
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55 ~ +150	

Electrical characteristics (Ta=25°C unless otherwise noted)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Static characteristics						
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0V, I _D = -250μA	-30			V
V _{GS(th)}	Gate-Threshold Voltage	V _{DS} = V _{GS} , I _D = -250μA	-1	-1.4	-3	V
I _{GSS}	Gate-body Leakage current	V _{DS} = 0V, V _{GS} = ±20V			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = -24V, V _{GS} = 0V			-1	μA
R _{DS(on)}	Drain-Source On-Resistance ¹⁾	V _{GS} = -10V, I _D = -4.1A		50	60	mΩ
		V _{GS} = -4.5V, I _D = -3A		68	87	
g _{fs}	Forward Trans conductance ¹⁾	V _{DS} = -5V, I _D = -4A	5.5			S
V _{SD}	Diode forward voltage ¹⁾	I _S = -1A, V _{GS} = 0V			-1	V
Dynamic characteristics ²⁾						
C _{iss}	Input Capacitance	V _{DS} = -15V, V _{GS} = 0V, f = 1MHz		700		pF
C _{oss}	Output Capacitance			120		
C _{rss}	Reverse Transfer Capacitance			75		
Switching characteristics ²⁾						
t _{d(on)}	Turn-On Delay Time	V _{GS} = -10V, V _{DS} = -15V, R _L = 3.6Ω, R _{GEN} = 3Ω		8.6		ns
t _r	Rise Time			5.0		
t _{d(off)}	Turn-Off Delay Time			28.2		
t _f	Fall Time			13.5		

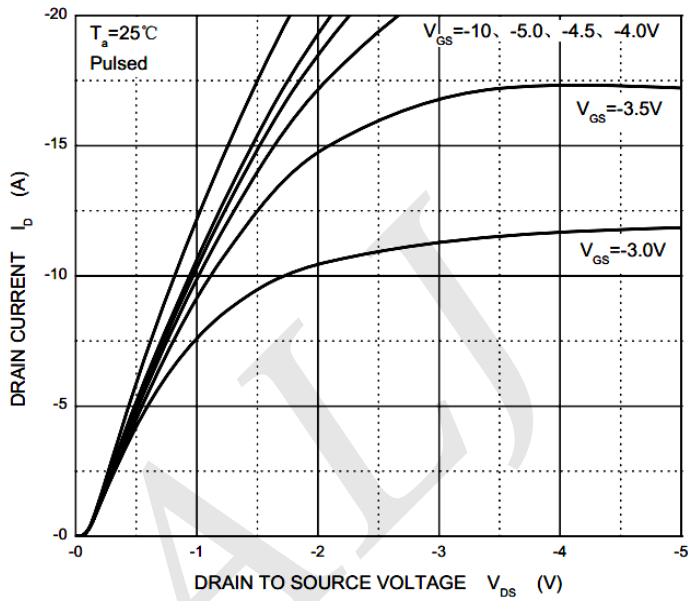
Notes:

1. Pulse test: Pulse width $\leq 300\mu s$, Duty cycle $\leq 2\%$.

2. These parameters have no way to verify.

Typical Characteristics

Output Characteristics



Transfer Characteristics

