至尚臻品

SOT-23-3L Plastic-Encapsulate MOSFETS

CJK3407 P-Channel Enhancement Mode Field Effect Transistor

SOT-23-3L

1. GATE
2. SOURCE
3. DRAIN

General Description

The CJK3407 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.

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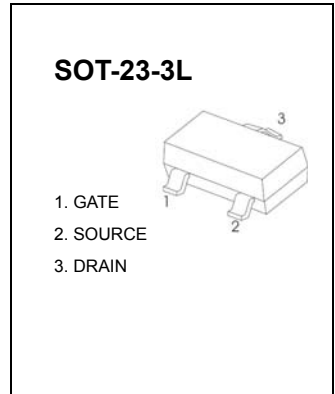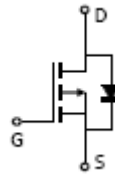
Maximum ratings (T$_a$=25℃ unless otherwise noted)

Parameter	Symbol	Value	Units
Drain-Source voltage	V_{DS}	-30	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	I_D	-4.1	A
Drain Current-Pulsed	I_{DM}	-20	A
Power Dissipation	P_D	300	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	417	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	℃

Electrical characteristics (T$_a$=25℃ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static 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$_{GS}$ =±20V, V$_{DS}$ = 0V			±100	nA
Drain-source on-resistance (note 1)	R$_{DS(on)}$	V$_{GS}$ =-10V, I$_D$ =-4.1A			60	mΩ
		V$_{GS}$ =-4.5V, I$_D$ =-3A			87	mΩ
Forward tranconductance (note 1)	g$_{FS}$	V$_{DS}$ =-5V, I$_D$ =-4A	5.5			S
Gate threshold voltage	V$_{GS(th)}$	V$_{DS}$ =V$_{GS}$, I$_D$ =-250μA	-1		-3	V
Diode forward voltage (note 1)	V$_{SD}$	I$_S$=-1A,V$_{GS}$=0V			-1	V
Dynamic characteristics (note 2)						
Input capacitance	C$_{iss}$			700		pF
Output capacitance	C$_{oss}$	V$_{DS}$ =-15V,V$_{GS}$ =0V,f =1MHz		120		pF
Reverse transfer capacitance	C$_{rss}$			75		pF
Switching characteristics (note 2)						
Turn-on delay time	t$_{d(on)}$			8.6		ns
Turn-on rise time	t$_r$	V$_{GS}$=-10V,V$_{DS}$=-15V,		5.0		ns
Turn-off delay time	t$_{d(off)}$	R$_L$=3.6Ω,R$_{GEN}$=3Ω		28.2		ns
Turn-off fall time	t$_f$			13.5		ns

Notes:

1. Pulse test: Pulse width ≤300μs, Duty cycle ≤2%.

2. These parameter have no way to verify.