



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

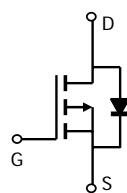
SOT-23 Plastic-Encapsulate MOSFETs

CJ3401 P-Channel Enhancement Mode Field Effect Transistor

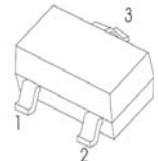
FEATURE

- High dense cell design for extremely low $R_{DS(ON)}$.
- Exceptional on-resistance and maximum DC current capability

MARKING: R1



SOT-23



Maximum ratings ($T_a=25^\circ\text{C}$ 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 ($t < 5\text{s}$)	$R_{\theta JA}$	357	$^\circ\text{C/W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55~+150	$^\circ\text{C}$

Electrical characteristics ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Units
Off characteristics						
Drain-source breakdown voltage	$V_{(\text{BR})\text{DSS}}$	$V_{GS} = 0V, I_D = -250\mu\text{A}$	-30			V
Zero gate voltage drain current	I_{DSS}	$V_{DS} = -24V, V_{GS} = 0V$			-1	μA
Gate-source leakage current	I_{GSS}	$V_{GS} = \pm 12V, V_{DS} = 0V$			± 100	nA
On characteristics						
Drain-source on-resistance (note 1)	$R_{DS(\text{on})}$	$V_{GS} = -10V, I_D = -4.2\text{A}$			65	$\text{m}\Omega$
		$V_{GS} = -4.5V, I_D = -4\text{A}$			75	$\text{m}\Omega$
		$V_{GS} = -2.5V, I_D = -1\text{A}$			90	$\text{m}\Omega$
Forward transconductance (note 1)	g_{FS}	$V_{DS} = -5V, I_D = -5\text{A}$	7			S
Gate threshold voltage	$V_{GS(\text{th})}$	$V_{DS} = V_{GS}, I_D = -250\mu\text{A}$	-0.7		-1.3	V
Dynamic characteristics (note 2)						
Input capacitance	C_{iss}	$V_{DS} = -15V, V_{GS} = 0V, f = 1\text{MHz}$		954		pF
Output capacitance	C_{oss}			115		pF
Reverse transfer capacitance	C_{rss}			77		pF
Switching characteristics (note 2)						
Turn-on delay time	$t_{d(on)}$	$V_{GS} = -10V, V_{DS} = -15V, R_L = 3.6\Omega, R_{GEN} = 6\Omega$			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}	$I_S = -1\text{A}, V_{GS} = 0V$			-1	V

Note :

1. Pulse Test : Pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2\%$.
2. These parameters have no way to verify.

Typical Characteristics

CJ3401

