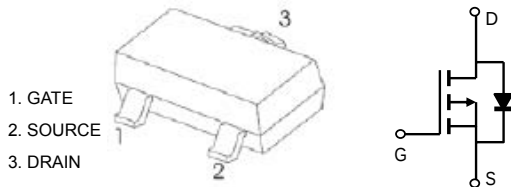


FEATURE

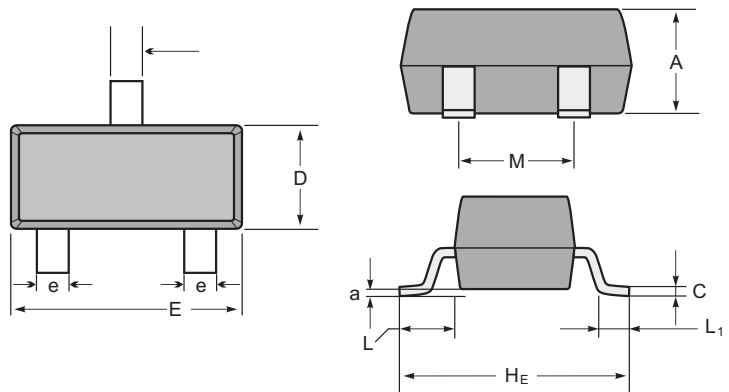
- High density cell design for low $R_{DS(ON)}$
- Voltage controlled small signal switch
- Rugged and reliable
- High saturation current capability

SOT-23



Marking

Type number	Marking code
AO3401	3401



SOT-23 mechanical data

UNIT		A	C	D	E	H _E	e	M	L	L ₁	a
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0
	min	35	3	47	110	87	12	67			6

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	400	mW
Thermal Resistance from Junction to Ambient (t<5s)	$R_{\theta JA}$	313	$^{\circ}\text{C/W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~+150	$^{\circ}\text{C}$

AO3401

T_a=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		41	60	mΩ
		V _{GS} =-4.5V, I _D =-4A		47	70	mΩ
		V _{GS} =-2.5V, I _D =-1A		61	85	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		-1.3	V
Dynamic characteristics (note 2)						
Input capacitance	C _{iss}	V _{DS} =-15V, V _{GS} =0V, f =1MHz		1050		pF
Output capacitance	C _{oss}			127		pF
Reverse transfer capacitance	C _{rss}			85		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			6.5	ns
Turn-on rise time	t _r				3.5	ns
Turn-off delay time	t _{d(off)}				40	ns
Turn-off fall Time	t _f				13	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 ≤ 300μs, duty cycle ≤ 2%.
2. These parameters have no way to verify.

RATING AND CHARACTERISTIC CURVES (AO3401)

