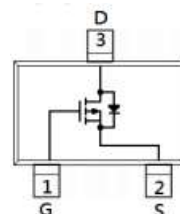


Features

- 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.
AO3418	SOT23-3	**	3000/PCS

Absolute Maximum Ratings (T_C=25°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	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	°C
Thermal Resistance,Junction-to-Ambient	R _{θJA}	357	°C / 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	$t_{d(off)}$	$R_L=2.7\Omega$	-	15.1	-	
Fall time	t_f	$R_G=3\Omega$	-	2.7	-	

Electrical Characteristics Diagrames

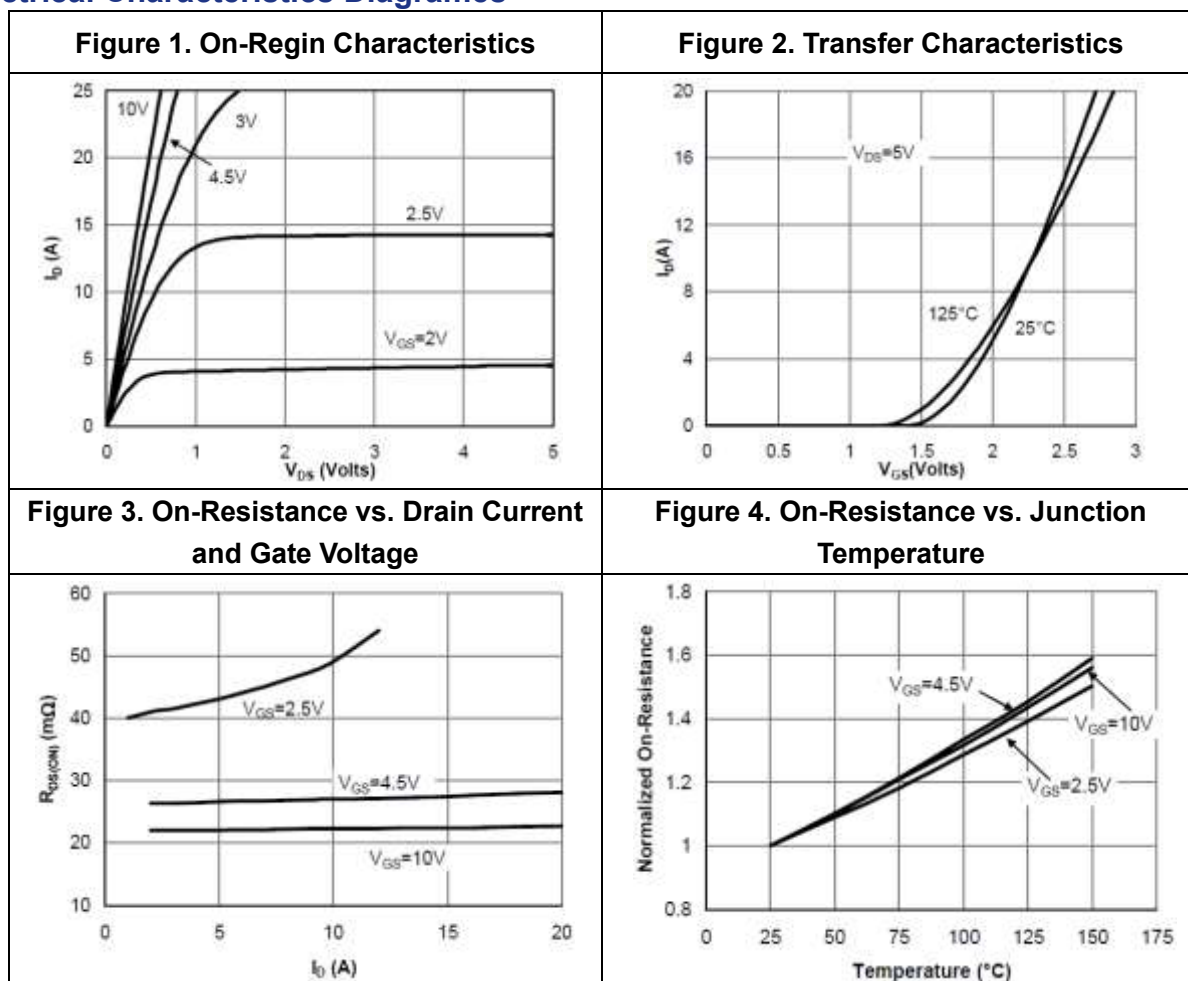


Figure 5. On-Resistance vs. Gate-Source Voltage

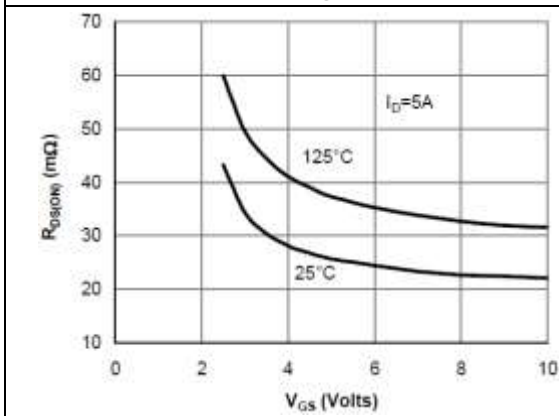
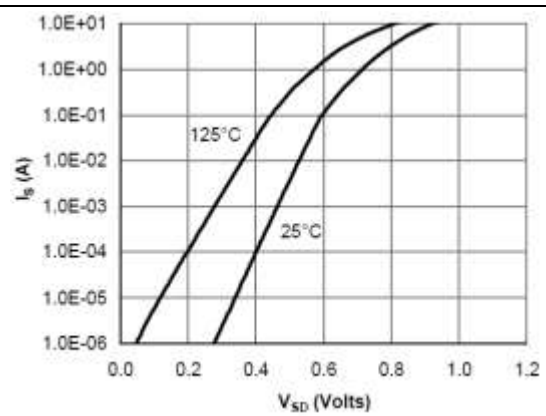
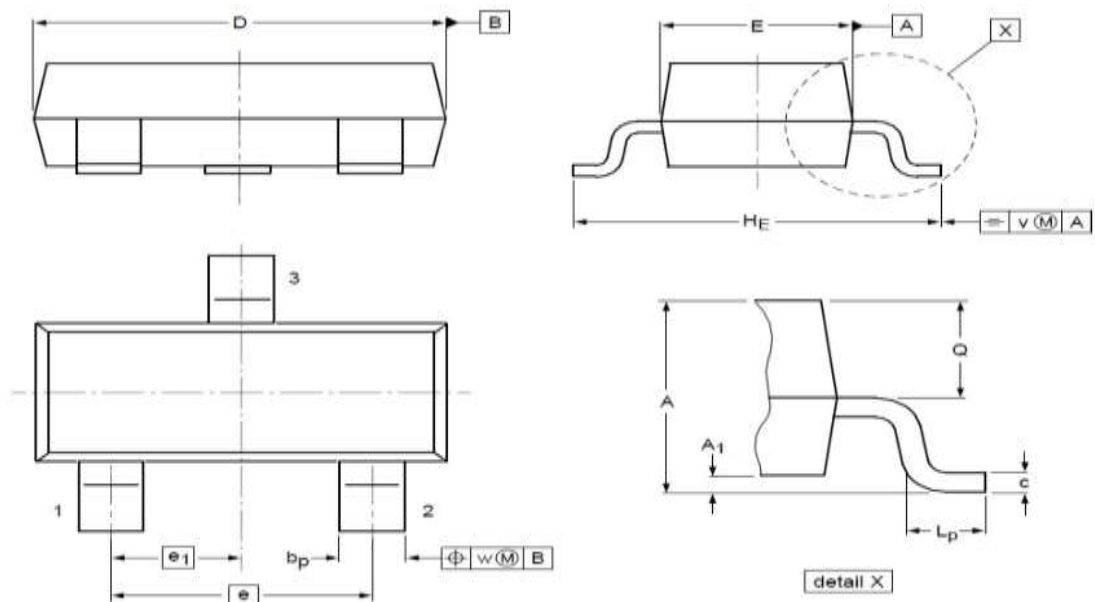


Figure 6. Body-Diode Characteristics



Physical Dimensions

SOT23-3L



符号	尺寸(mm)			符号	尺寸(mm)		
	最小值	典型值	最大值		最小值	典型值	最大值
A	0.90	1.03	1.10	A1	0.01	0.05	0.10
bp	0.38	0.42	0.48	c	0.09	0.13	0.15
D	2.80	2.92	3.00	E	1.20	1.33	1.40
e	-	1.90	-	e1	-	0.95	-
HE	2.10	2.40	2.50	Lp	0.15	0.23	0.45
Q	0.45	0.49	0.55	v	-	0.20	-
w	-	0.10	-				