

Features

High Power and current handing capability

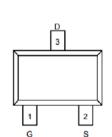
top view

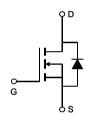
SOT23-3

- Lead free product is acquired
- Surface Mount Package
- Available in SOT23 Package

Applications

- PWM applications
- Load switch
- Power management





NMOS

Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Drain-Source Voltage	V _{DS}	30	V
Drain Current – Continuous	I _D	5.8	Α
Drain Current- Continuous	I _D (T _a =70℃)	4.2	Α
Pulsed Drain Current	I _{DM}	34	Α
Gate-Source Voltage	V_{GS}	±20	V
Total Power Dissipation	P _D	1.4	W
Total Power Dissipation	P _D (T _a =70℃)	1.0	W
Operating and Storage Junction Temperature Range	T _J , T _{STG}	-55 to 150	${\mathbb C}$

Product Summary



V _{DS}	30	V
R DS(on),Typ@ VGS=10 V	18	mΩ
I D	6.5	Α

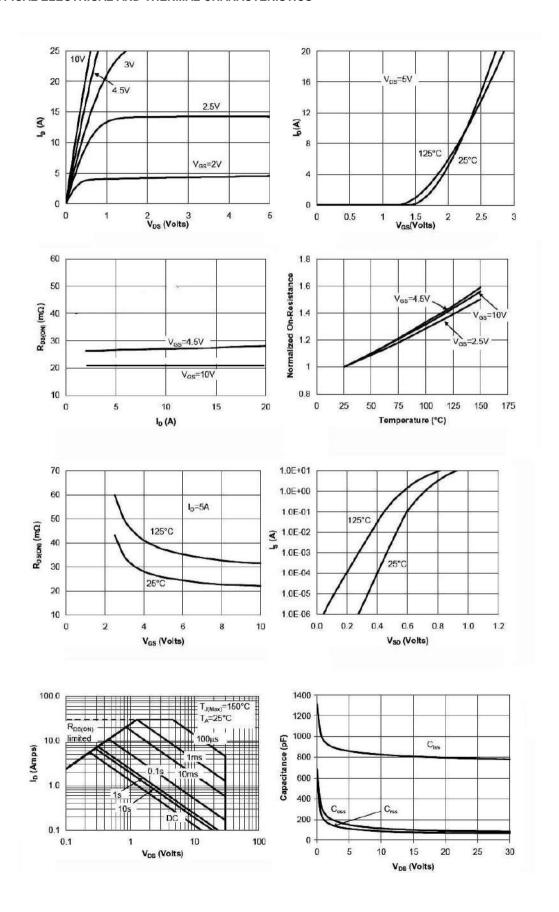


Electrical Characteristics(Ta=25°C)

参数	符号	测试条件		最小值	典型值	最大值	单位	
Parameter	Symbol	Test Conditions		Min	Тур	Max	Unit	
Drain–Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V	I _D =250μA	30			V	
	I _{DSS}	V _{DS} =24V	V_{GS} =0 V			1	μΑ	
Zero Gate Voltage Drain Current		V _{DS} =24V T _J =55℃	V _{GS} =0V			5	μΑ	
Gate–Body Leakage.	I_{GSS}	V _{GS} =±20V	V _{DS} =0V			±0.1	μΑ	
On–State Drain Current	I _{D(on)}	V _{GS} =4.5V	V _{DS} =5V	30			Α	
Gate Threshold Voltage	$V_{GS(th)}$	V _{DS} =V _{GS}	I _D =250μA	1.2	1.6	2.5	V	
	R _{DS(on)(1)}	V _{GS} =10V	I _D =5.8A		18	22		
Static Drain–Source	R _{DS(on)(2)}	V _{GS} =10V T _J =125℃	I _D =5.8A			38	mΩ	
On–Resistance	R _{DS(on)(3)}	V _{GS} =4.5V	I _D =5A		27	34		
Forward Transconductance	9 FS	V _{DS} =5V	I _D =5A	8.5			S	
Drain–Source Diode Forward Voltage	V _{SD}	V _{GS} =0V	I _S =1A		0.77	1	V	
Input Capacitance	C _{iss}				345	690		
Output Capacitance	C _{oss}	V _{DS} =15V V _{GS} =0V f=1MHz			55		pF	
Reverse Transfer Capacitance	C _{rss}	1 1111112	VII 12		32			
Turn–On Delay Time	t _{d(on)}				2.8			
Turn–On Rise Time	t _r	$V_{GS}=10V$ $R_L=2.7\Omega$	$R_L=2.7\Omega$		7.2			
Turn–Off Delay Time	t _{d(off)}	V_{DS} =15V R_{GEN} =6 Ω			15.8		ns	
Turn–Off Fall Time	t _f				4.6			

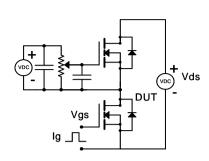


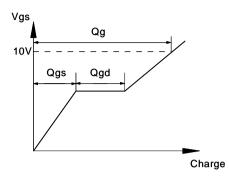
TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS



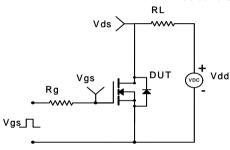


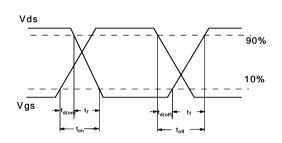
Gate Charge Test Circuit & Waveform



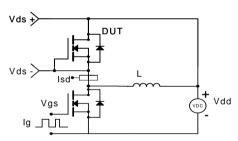


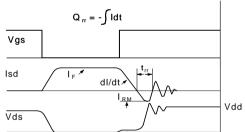
Resistive Switching Test Circuit & Waveforms





Diode Recovery Test Circuit & Waveforms









Ordering and Marking Information

Ordering Device No.	Marking	Package	Packing	Quantity
ASDM3404ZA-R	3404	SOT23	Tape&Reel	3000/Reel

PACKAGE	MARKING		
SOT23-3	3404 Date Code		

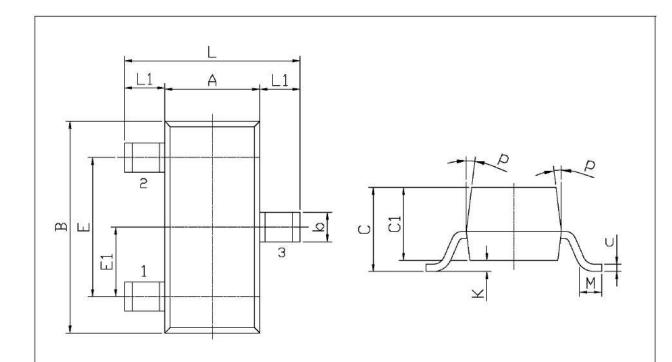




PACKAGE INFORMATION

S0T-23

单位; mm



Symbol	Dimensions In Millmeters			Dimensions In Millmeters		
	Min	Max	Symbol	Min	Max	
L	2.2	2.7	С	1.30Max		
L1	0.45	0.65	C1	0.90	1.20	
Α	1.15	1.50	С	0.05	0.20	
В	2.70	3.10	К	0	0.10	
E	1.70	2.10	М	0.20MIN		
E1	0.85	1.05	Р	7°		
b	0.35	0.55				



ASDM3404ZA

30V N-CHANNEL MOSFET

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