GT2328

Data Sheet

YGMOS Technology Crop.

100V N Channel Enhancement Mode MOSFET   100 V N 沟道增强型 MOS 管

VDS= 100V

RDS(ON), Vgs@10V, Ids@1.0A = 270mΩ

RDS(ON), Vgs@4.5V, Ids@0.5A = 340mΩ

Features 特性

Advanced trench process technology 高级的加工技术

High Density Cell Design For Ultra Low OnResistance

极低的导通电阻高密度的单元设计

Improved ShootThrough FOM 改进的成型工艺

Package Dimensions 封装尺寸及外形图

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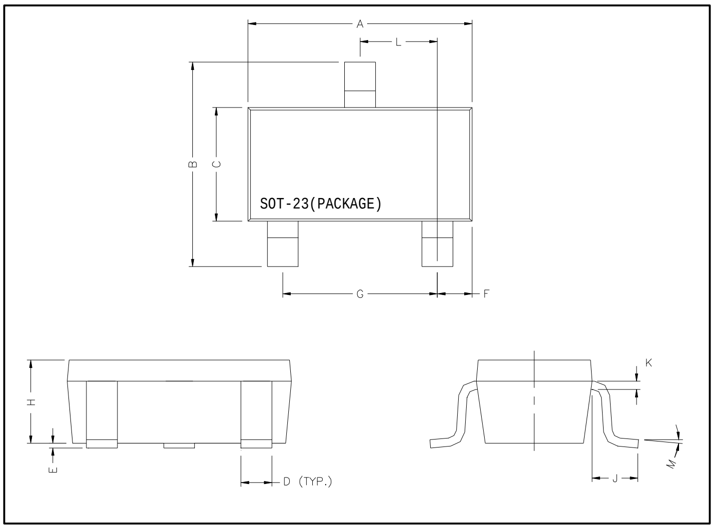
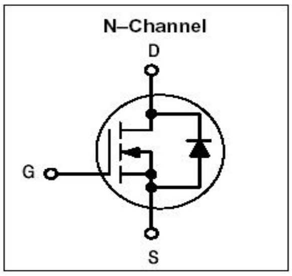
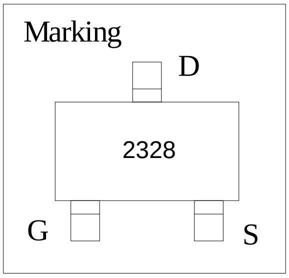






REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.10	G	1.90	REF.
B	2.40	2.80	H	1.00	1.30
C	1.40	1.60	K	0.10	0.20
D	0.35	0.50	J	0.40	-
E	0	0.10	L	0.85	1.15
F	0.45	0.55	M	0°	10°

Maximum Ratings and Thermal Characteristics (TA = 25oC unless otherwise noted) 25 °C 极限参数和热特性

Parameter 极限参数		**Symbol 符号**	**Limit 范围**	**Unit 单位**
DrainSource Voltage 漏源电压		V_{DS}	100	V
GateSource Voltage 栅源电压		V_{GS}	± 20	
Continuous Drain Current 连续漏极电流		I_D	1.2	A
Pulsed Drain Current 脉冲漏极电流		I_{DM}	5	
Maximum Power Dissipation 最大耗散功率	TA = 25°C	P_D	1	W
	TA = 75°C		0.5	
Operating Junction and Storage Temperature Range 使用及储存温度		T_J, T_{stg}	-55 to 150	°C
JunctiontoAmbient Thermal Resistance (PCB mounted) 结环热阻		$R_{\theta JA}$	125	°C/W

ELECTRICAL CHARACTERISTICS 一般电气特性

Parameter 参数	符号	**Test Condition 测试条件**	最小值	典型值	最大值	单位
Static 静态参数						
DrainSource Breakdown Voltage 漏源击穿电压	BV_{DSS}	V_{GS} = 0V, I_D = 250uA	100			V
DrainSource OnState Resistance 漏源导通电阻	$R_{DS(on)}$	V_{GS} = 4.5V, I_D = 0.5A		275	340	mΩ
DrainSource OnState Resistance 漏源导通电阻	$R_{DS(on)}$	V_{GS} = 10V, I_D = 1.0A		230	270	
Gate Threshold Voltage 开启电压	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D = 250uA	1.5	2.5	3.5	V
Zero Gate Voltage Drain Current 零栅压漏极电流	I_{DSS}	V_{DS} = 80V, V_{GS} = 0V			1	uA
Gate Body Leakage 漏极短路时截止栅电流	I_{GSS}	V_{GS} = ± 20V, V_{DS} = 0V			±100	nA
Forward Transconductance 正向跨导	g_{fs}	V_{DS} = 5 V, I_D = 1 A		2.4		S
Dynamic 动态参数						
Total Gate Charge 栅极总电荷	Q_g	V_{DS} =80V, I_D = 1.0A V_{GS} = 10V		9.7		nC
GateSource Charge 栅源极电荷	Q_{gs}			1.6		
GateDrain Charge 栅漏极电荷	Q_{gd}			1.7		
TurnOn Delay Time 导通延迟时间	$t_{d(on)}$	V_{DD} = 50V, R_L = 6.8Ω I_D =1.0 A， V_{GEN} = 10V R_G =3.3Ω		1.6		ns
TurnOn Rise Time 导通上升时间	t_r			19		
TurnOff Delay Time 关断延迟时间	$t_{d(off)}$			13.6		
TurnOff Fall Time 关断下降时间	t_f			19		
Input Capacitance 输入电容	C_{iss}	V_{DS} = 15V, V_{GS} = 0V f = 1.0 MHz		508		pF
Output Capacitance 输出电容	C_{oss}			29		
Reverse Transfer Capacitance 反向传输电容	C_{rss}			16.4		
SourceDrain Diode 源漏二极管参数						
Max. Diode Forward Current 最大正向电流	I_S				1.2	A
Diode Forward Voltage 正向电压	V_{SD}	I_S = 2.0A, V_{GS} = 0V			1.2	V

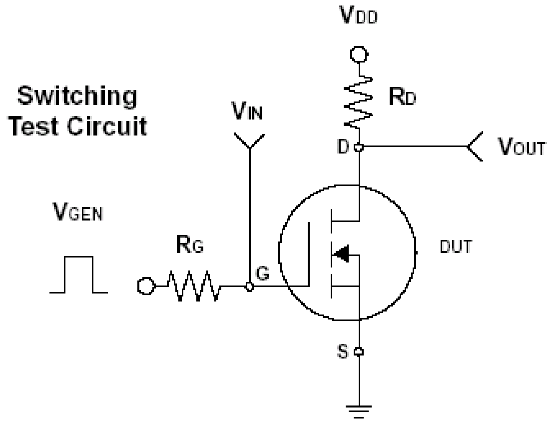
Note :

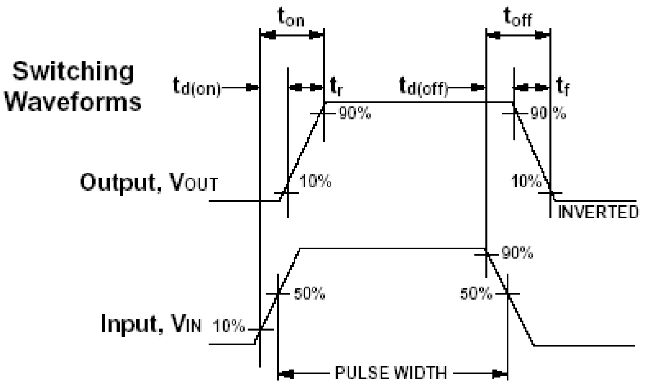
1.The data tested by surface mounted on a 1 inch^2 FR-4 board with 2OZ copper.

2.The data tested by pulsed , pulse width ≦ 300us , duty cycle ≦ 2%

3.The power dissipation is limited by 150℃ junction temperature

4.The data is theoretically the same as I_D and I_{DM} , in real applications , should be limited by total power dissipation.





Typical Characteristics

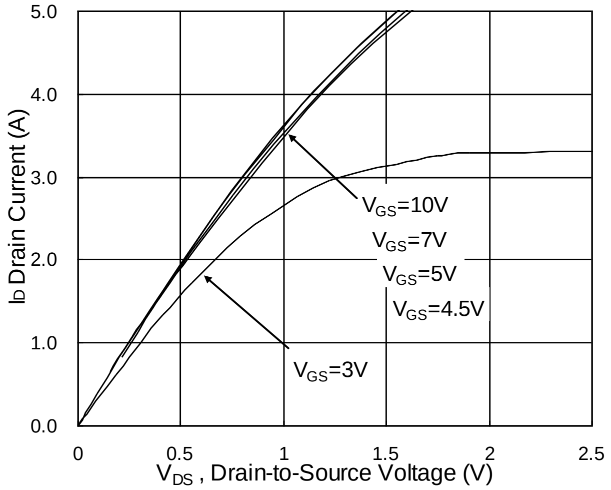


Fig.1 Typical Output Characteristics

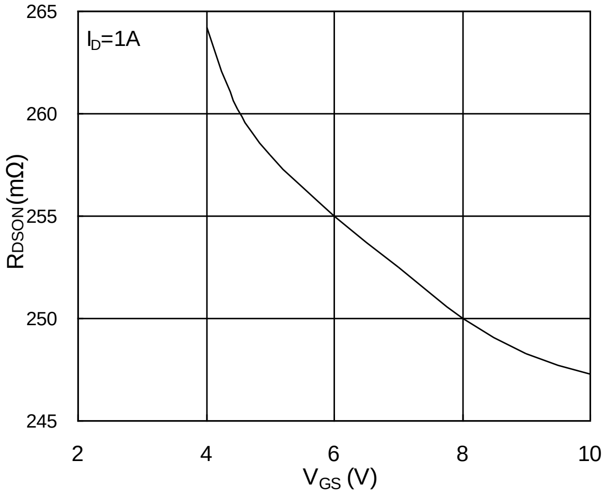


Fig.2 On-Resistance vs. Gate-Source

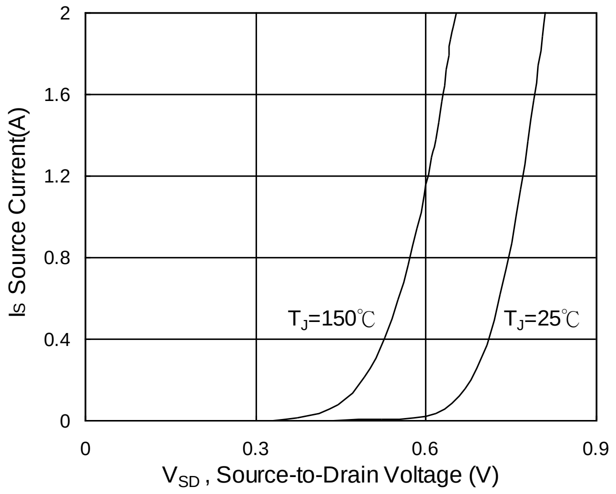


Fig.3 Forward Characteristics of Reverse

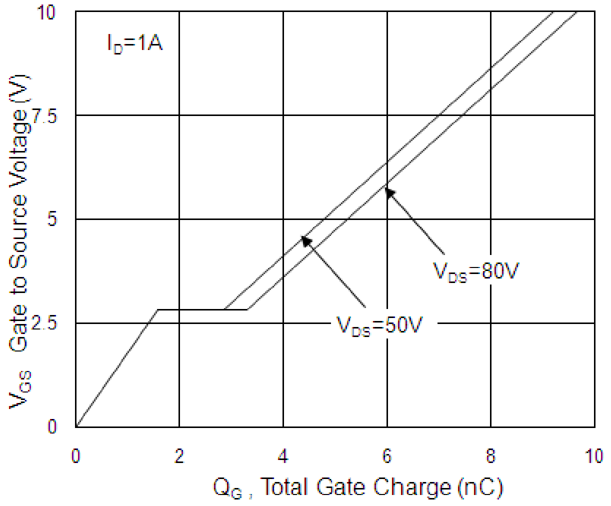


Fig.4 Gate-Charge Characteristics

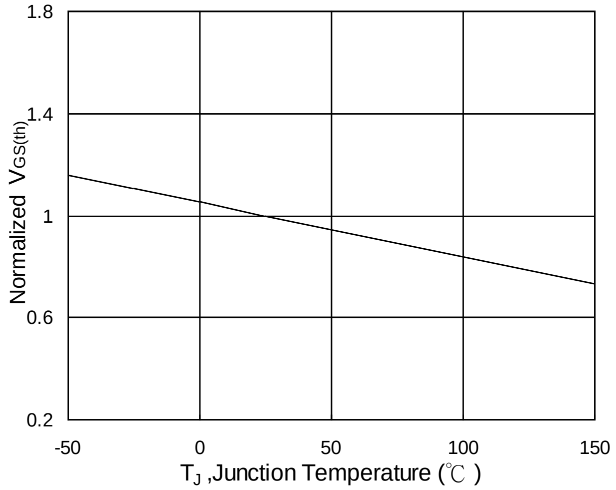


Fig.5 Normalized $V_{GS(th)}$ vs. T_J

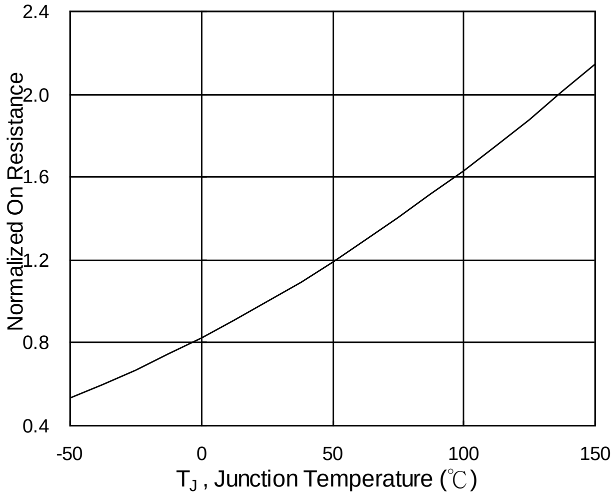


Fig.6 Normalized R_{DSON} vs. T_J