

FEATURES

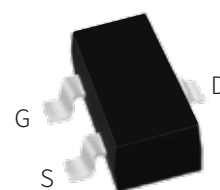
- Advanced trench process technology
- High Density Cell Design For Ultra Low On-Resistance
- High Power and Current handing capability

APPLICATIONS

- Low Side Load Switch
- Battery Switch
- Optimized for Power Management Applications for Portable Products, such as Aeromodelling, Power bank, Brushless motor, Main board , and Others

APPROVALS

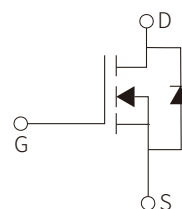
RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003



SOT-23



Marking



Schematic Symbol

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	60	V
Continuous drain current $T_A=25^{\circ}\text{C}$	I_D	3	A
Pulse Drain Current Tested (Note1) $T_A=25^{\circ}\text{C}$	I_{DM}	10	A
Gate-Source Voltage	V_{GS}	± 20	V
Maximum Power Dissipation $T_A=25^{\circ}\text{C}$	P_D	1.38	W
Diode Continuous Forward Current $T_A=25^{\circ}\text{C}$	I_S	3	A
Thermal Resistance Junction — to — Ambient (Note2)	$R_{\theta JA}$	90.5	$^{\circ}\text{C/W}$
Junction temperature	T_J	$-55 \sim +150$	$^{\circ}\text{C}$
Storage temperature	T_{STG}	$-55 \sim +150$	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Static Electrical Characteristics @TJ= 25°C (unless otherwise stated)						
Drain-source Breakdown Voltage	BV _{DSS}	V _{GS} =0V,I _D =250μA	60			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =60V,V _{GS} =0V			1	μA
Gate–Body Leakage	I _{GSS}	V _{GS} =±20V,V _{DS} =0V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} ,I _D =250μA	1		2	V
Drain-Source On–Resistance(Note3)	R _{DS(on)}	V _{GS} =10V,I _D =3A		70	90	mΩ
		V _{GS} =4.5V,I _D =2A		81	109	
Dynamic Electrical Characteristics @T _J = 25°C (unless otherwise stated) (Note4)						
Input Capacitance	C _{iss}	V _{DS} =25V,V _{GS} =0V,f=1MHz		520		pF
Output Capacitance	C _{oss}			28		
Reverse Transfer Capacitance	C _{rss}			20		
Total Gate Charge	Q _g	V _{GS} =4.5V,V _{DS} =30V,I _D =3A		6		nC
Gate Source Charge	Q _{gs}			1.6		
Gate Drain Charge	Q _{gd}			3		
Switching Characteristics (Note4)						
Turn–On Delay Time	t _{d(on)}	V _{GS} =10V,I _D =1A V _{DD} =30V,R _g =3.3Ω		6		ns
Turn–On Rise Time	t _r			5		
Turn–Off Delay Time	t _{d(off)}			16		
Turn–Off Fall Time	t _f			3		
Source- Drain Diode Characteristics@TJ= 25°C (unless otherwise stated)						
Diode forward voltage(Note 1)	V _{SD}	I _S =1.2A,V _{GS} =0V			1.2	V

Note:

1. Repetitive Rating: Pulse width limited by maximum junction temperature.
2. Surface Mounted on FR4 Board, $t \leq 10$ sec
3. Pulse Test: pulse width ≤ 300 us, duty cycle $\leq 2\%$.
4. Guaranteed by design, not subject to production testing.

PARAMETER CHARACTERISTIC CURVE

Fig 1:

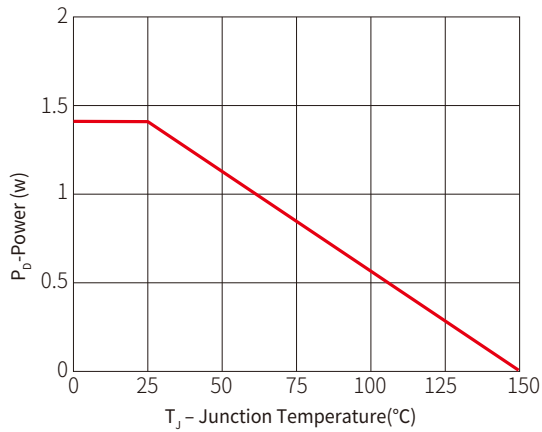


Figure 2:

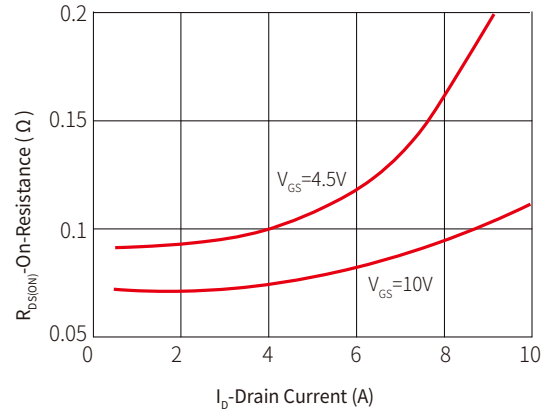


Figure 3:

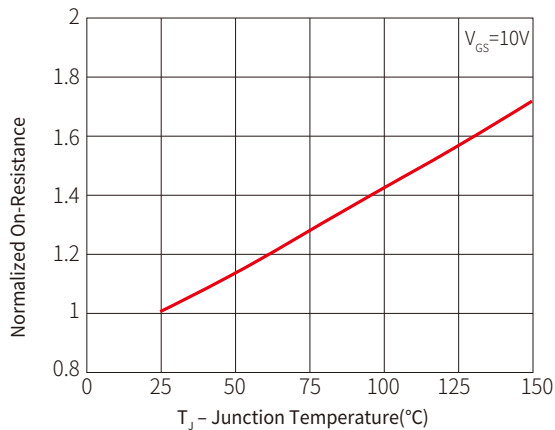


Figure 4:

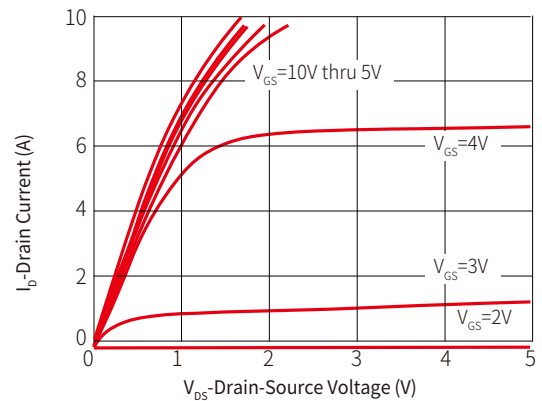


Figure 5:

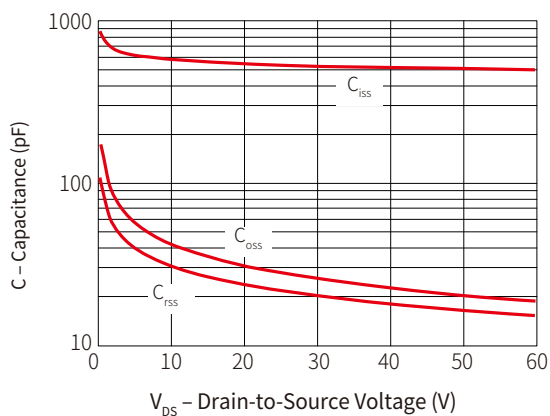


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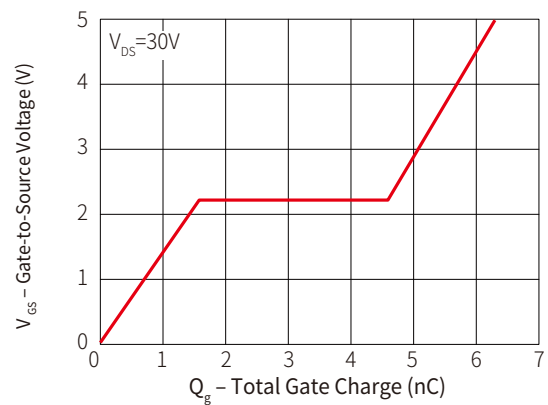
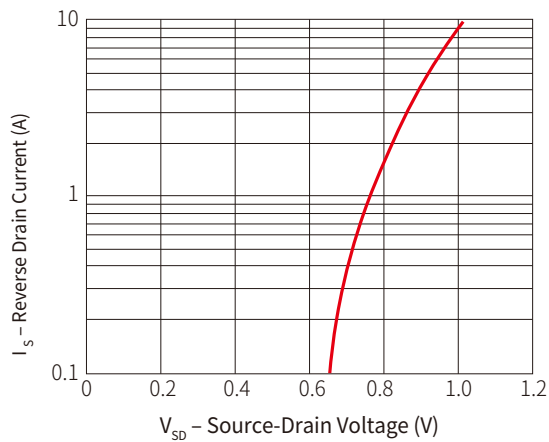
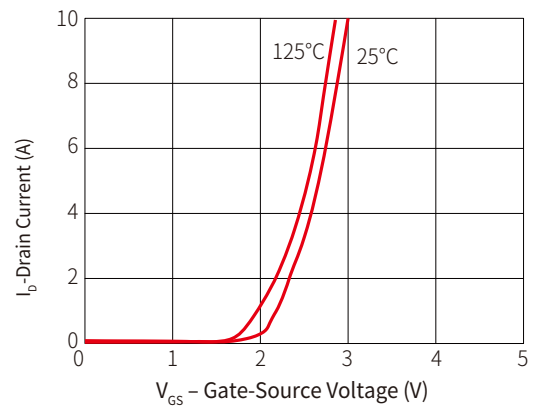
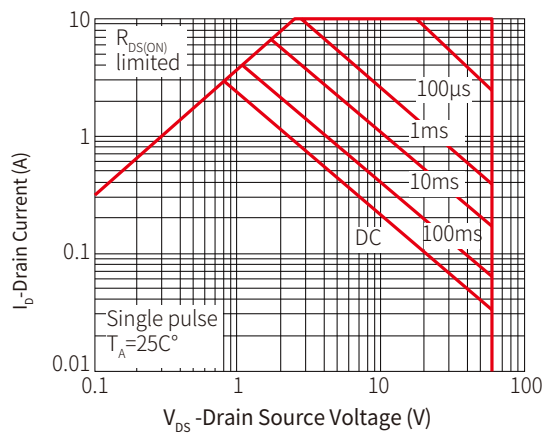
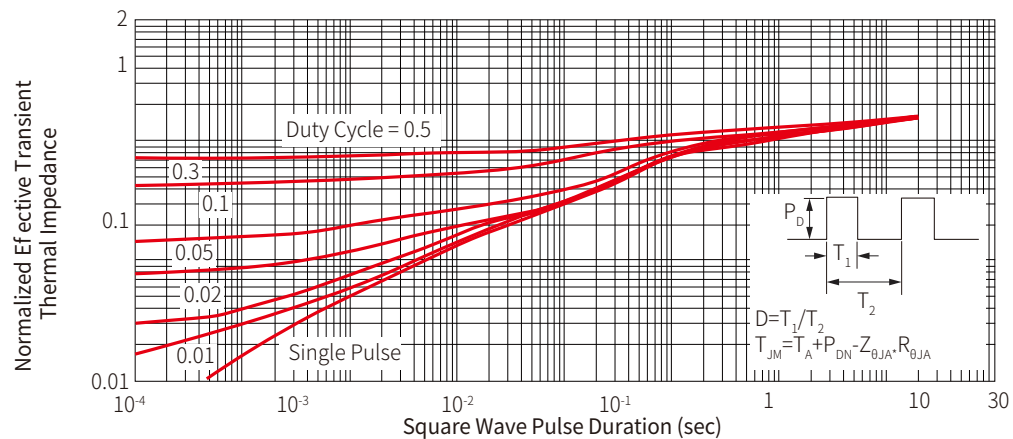
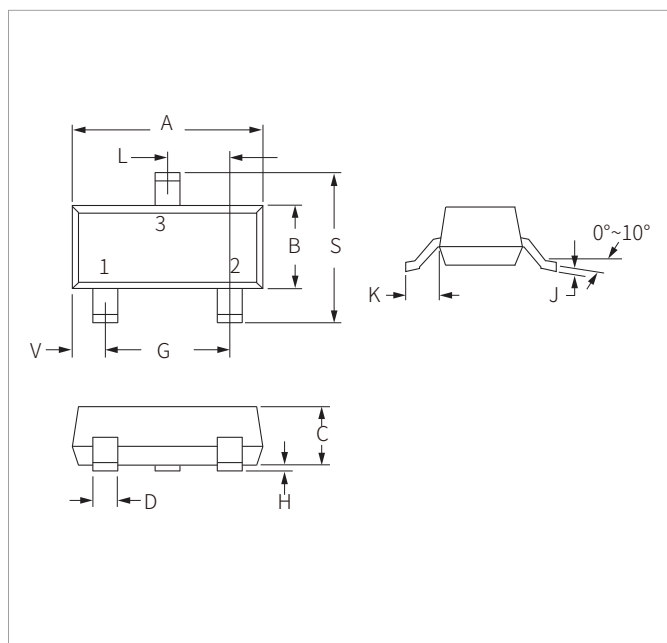


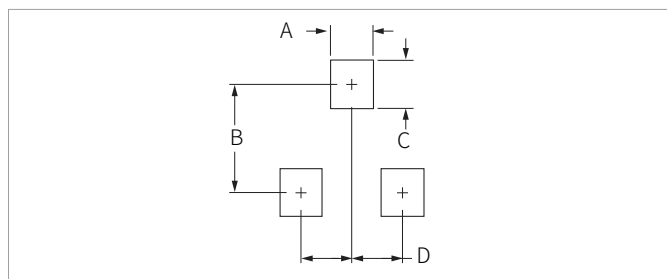
Figure 7:

Figure 8:

Figure 9:

Figure 10:


SOT-23 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.80	3.05	0.110	0.120
B	1.20	1.40	0.047	0.055
C	0.90	1.15	0.035	0.045
D	0.37	0.50	0.015	0.020
G	1.75	2.05	0.069	0.081
H	0.01	0.100	0.001	0.004
J	0.085	0.180	0.003	0.007
K	0.35	0.69	0.014	0.029
L	0.89	1.02	0.035	0.040
S	2.10	2.65	0.083	0.104
V	0.45	0.60	0.018	0.024

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.71	0.97	0.028	0.038
B	1.88	2.13	0.074	0.084
C	0.71	0.97	0.028	0.038
D	0.81	1.07	0.032	0.042

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SNM2308TS	SOT-23	3000PCS	7"

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By QR Code

Website



Wechat

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