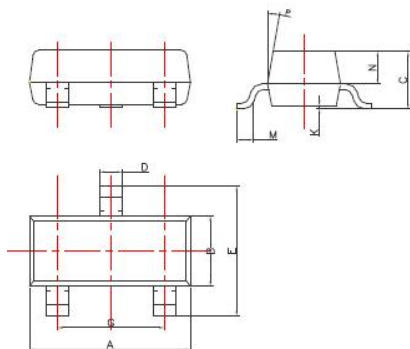
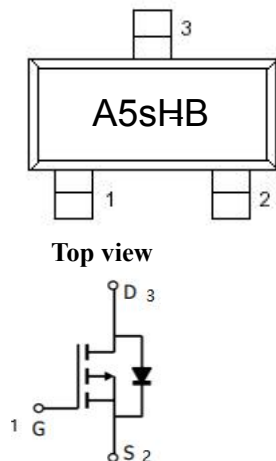


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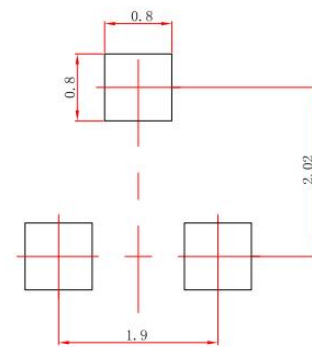
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Marking: A5sHB

SOT-23 Dimension

SOT-23
Suggested Layout

DIM	Millimeters
A	2.85~3.04
B	1.30±0.10
C	1.00±0.10
D	0.45±0.05
E	2.25~2.55
G	1.90±0.1
K	0.00-0.10
M	0.20 MIN
N	0.60±0.10
P	7±2°



mm(±0.05mm)

MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Rating	Unit
Drain-Source Voltage	V _{DSS}	-12	Vdc
Gate-Source Voltage	V _{GSS}	±8	Vdc
Drain Current—Continuous	I _D	-4.1	Adc
Peak Drain Current	I _{DM} ¹	-16	Adc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation T _A =25°C	P _D	400	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	313	°C/W
Junction and Storage Temperature	T _J , T _{stg}	150, -55 to +150	°C

1. Repetitive Rating : Pulse width limited by maximum junction temperature

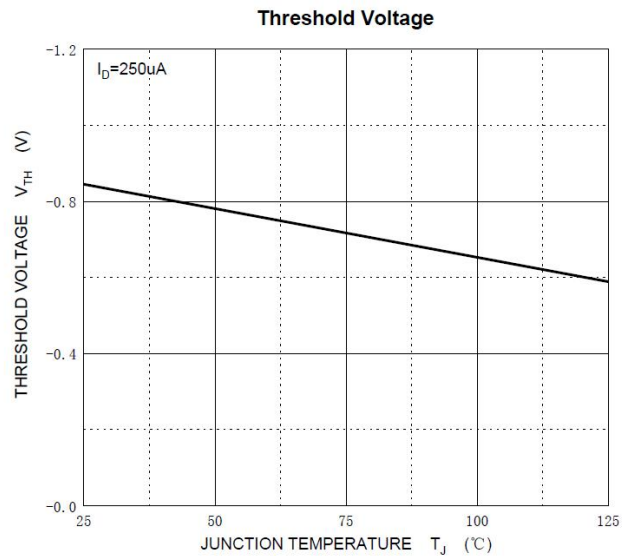
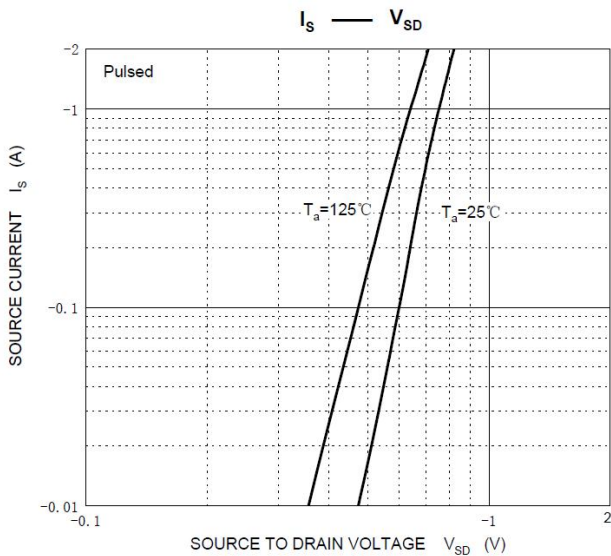
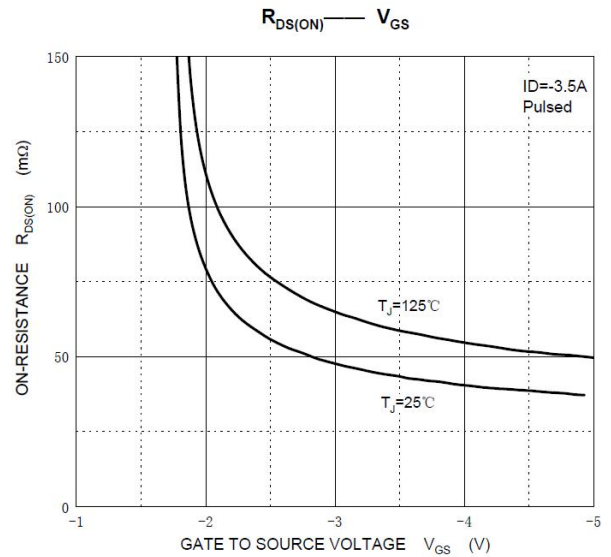
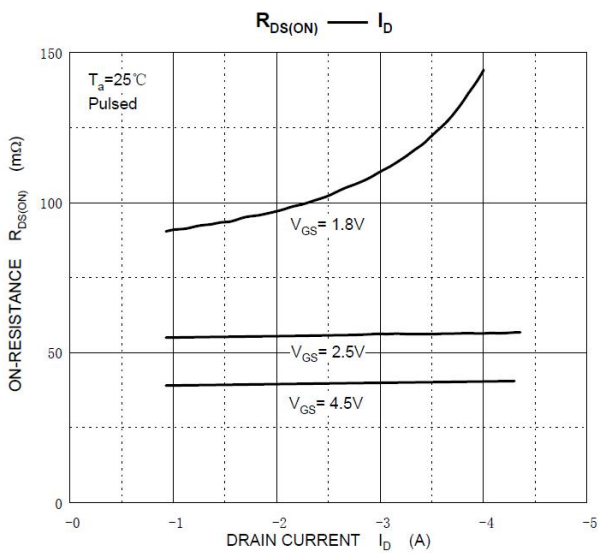
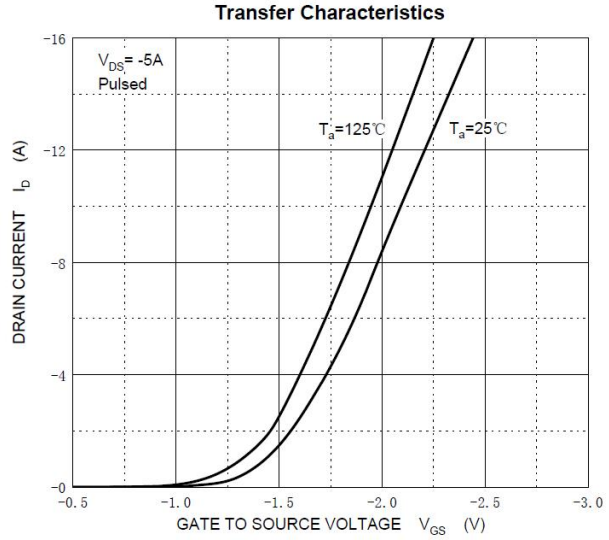
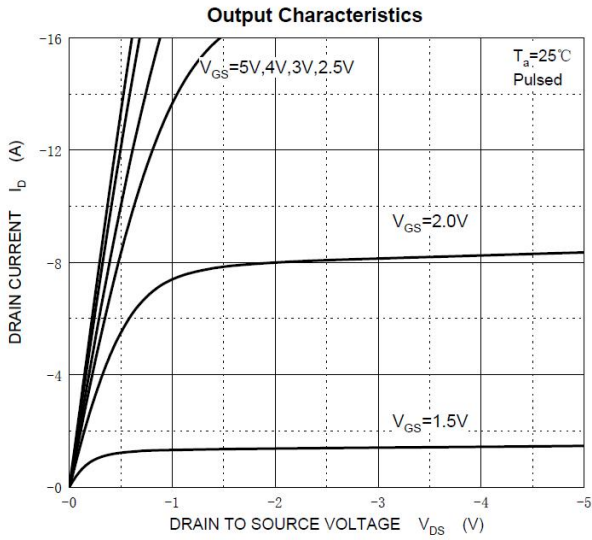
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

Characteristic	Symbol	Test Condition	Min	Type	Max	Unit
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} =0V, I _D =-250μA	-12	—	—	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-8V, V _{GS} =0V	—	—	-1.0	μA
Gate-Body Leakage Current, Forward	I _{GSS}	V _{GS} =±8V	—	—	±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-250μA	-0.50	-	-1.0	V
Static Drain-Source On-State Resistance	R _{DS(on)}	V _{GS} =-4.5V, I _D =-3.5A	—	40	50	mΩ
		V _{GS} =-2.5V, I _D =-3.0A	—	55	65	
		V _{GS} =-1.8V, I _D =-2.0A	—	90	120	
Forward Transconductance	g _{fs}	V _{DS} =-5V, I _D =-4.1A	6	-	-	S
Diode Forward On-Voltage	V _{SD}	V _{GS} =0V, I _S =-3.0A	—	0.75	1.3	V
Turn-On Delay Time	t _{d(on)}	V _{DD} = -4V, R _L = 1.2Ω I _D = -3.3A, V _{GEN} = -4.5V, R _G = 1Ω	—	13	20	ns
Turn-On Time	t _r		-	35	53	
Turn-Off Delay Time	t _{d(off)}		-	32	48	
Turn-On Fall Time	t _f		-	10	20	
Input Capacitance	C _{iss}	V _{DS} = -4V, V _{GS} = 0V, f = 1.0 MHz	-	740	-	pF
Output Capacitance	C _{oss}		-	290	-	
Reverse Transfer Capacitance	C _{rss}		-	190	-	
Total Gate Charge	Q _G	V _{DS} = -4V, I _D = -4.1A, V _{GS} = -2.5V	-	4.5	-	nC
Gate to source charge	Q _{GS}		-	1.2	-	
Gate to drain charge	Q _{GD}		-	1.6	-	

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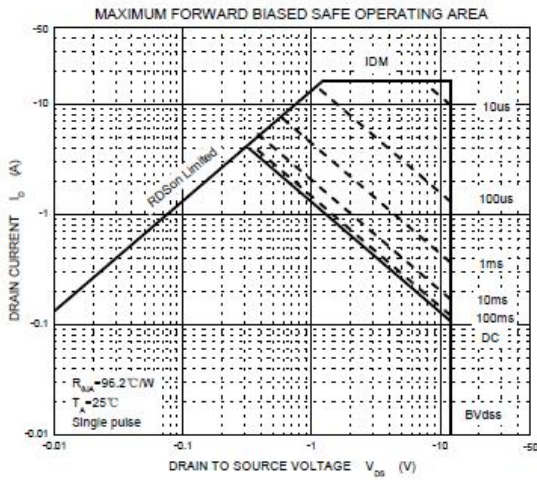
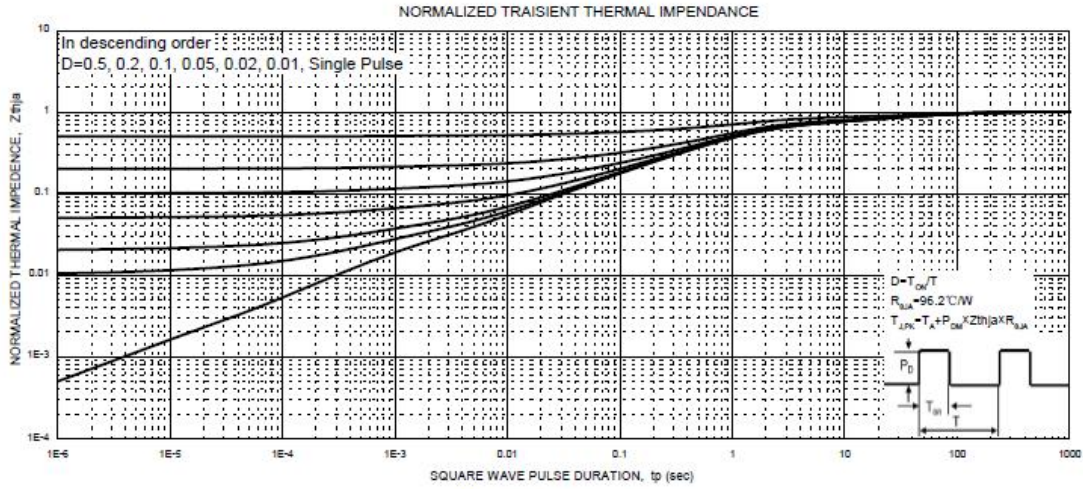
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Typical Performance Characteristics



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Note: Specifications are subject to change without notice. For more detail and update, please visit our website.