



DATA SHEET

/ Descriptions

N- CHANNEL MOSFET in a SOT-23 Plastic Package.

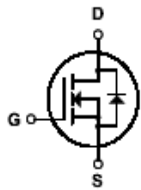
/ Features

Super high dense cell design for low $R_{DS(ON)}$, SOT-23 package.

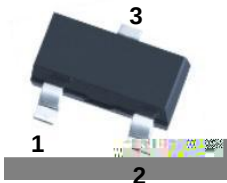
/ Applications

Battery management, High speed switch, low power DC to DC converter.

/ Equivalent Circuit



/ Pinning



PIN1 G PIN 2 S PIN 3 D

/ Marking

Marking	A2H
---------	-----

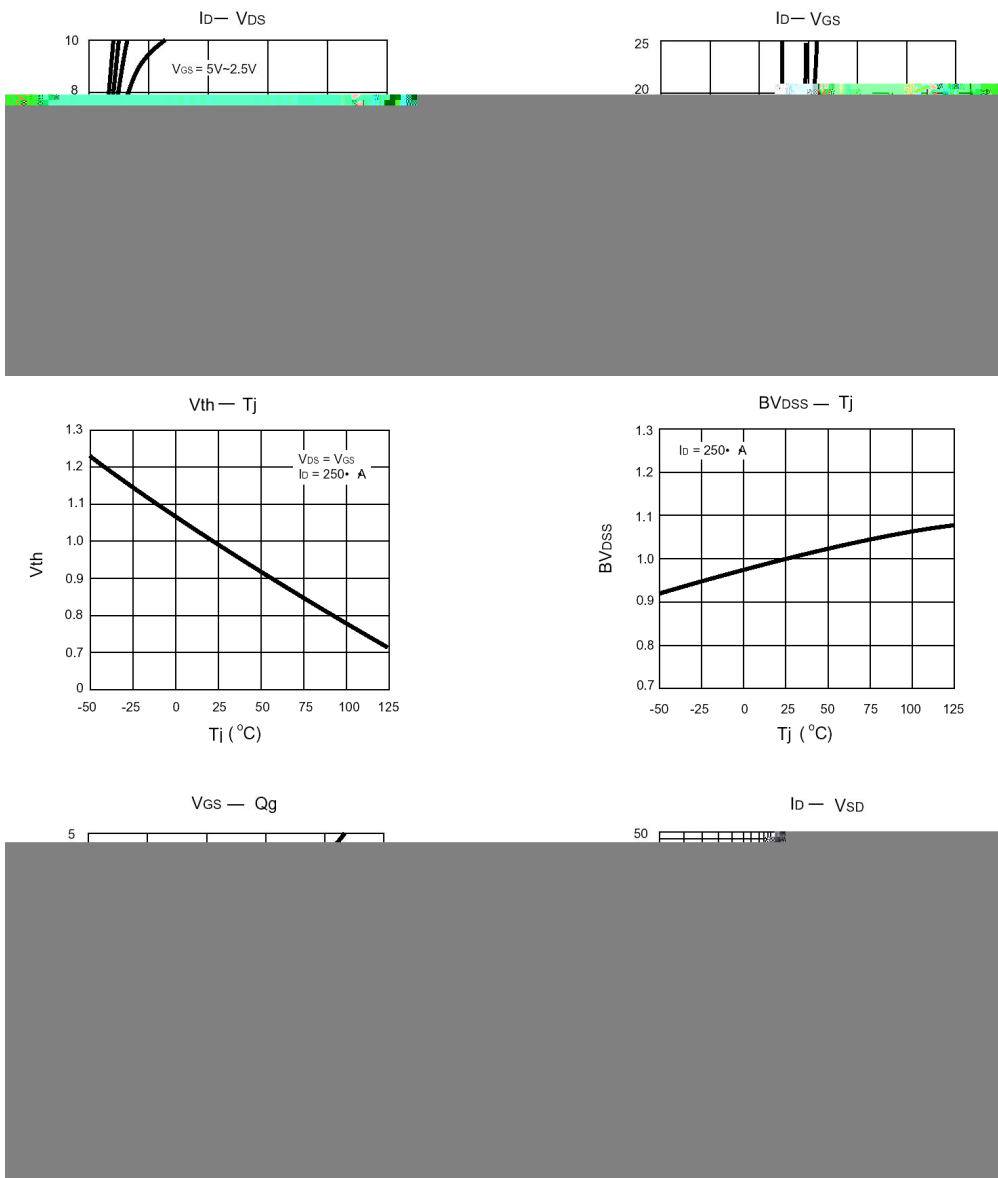
/ Absolute Maximum Ratings($T_a=25$)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	20	V
Gate-Source Voltage	V_{GSS}	± 10	V
Drain Current – Continuous	I_D	3.0	A
Pulsed Drain Current	I_{DM}	10	A
Continuous Source Current	I_S	0.95	A
Power Dissipation	P_D	0.9	W
Storage Temperature Range	T_{stg}	-55~150	$^{\circ}\text{C}$

/ Electrical Characteristics($T_a=25$)

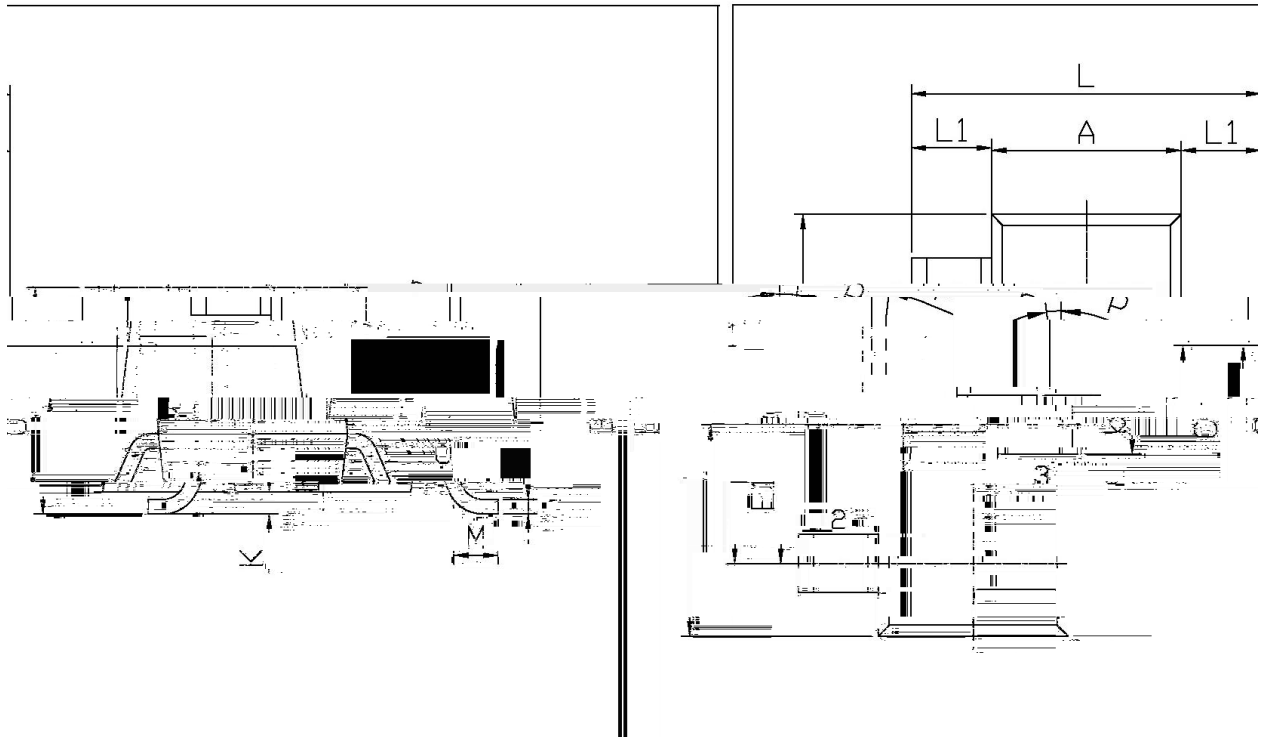
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0$ $I_D=10\mu\text{A}$	20	21		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{GS}=0$ $V_{DS}=20\text{V}$			1.0	μA
Gate–Body Leakage.	I_{GSS}	$V_{GS}=\pm 10\text{V}$ $V_{DS}=0\text{V}$			± 100	nA
Static Drain–Source On–Resistance	$R_{DS(on)1}$	$V_{GS}=4.5\text{V}$ $I_D=3.6\text{A}$		46	55	m Ω
	$R_{DS(on)2}$	$V_{GS}=2.5\text{V}$ $I_D=3.1\text{A}$		59	75	m Ω
Forward Transconductance	g_{FS}	$V_{DS}=5\text{V}$ $I_D=3.6\text{A}$		6		S
Drain–Source Diode Forward Voltage	V_{SD}	$V_{GS}=0\text{V}$ $I_D=1.25\text{A}$			1.2	V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=50\mu\text{A}$	0.50		1.0	V
Turn–On Delay Time	$t_{d(on)}$	$V_{DD}=10\text{V}$ $I_D=3.6\text{A}$ $V_{GEN}=4.5\text{V}$ $R_{L}=2.8\Omega$ $R_{GEN}=6\Omega$		7		ns
Turn–On Rise Time	t_r			55		
Turn–Off Delay Time	$t_{d(off)}$			15		
Turn–Off Fall Time	t_f			10		

/ Electrical Characteristic Curve



/ Package Dimensions

单位: mm



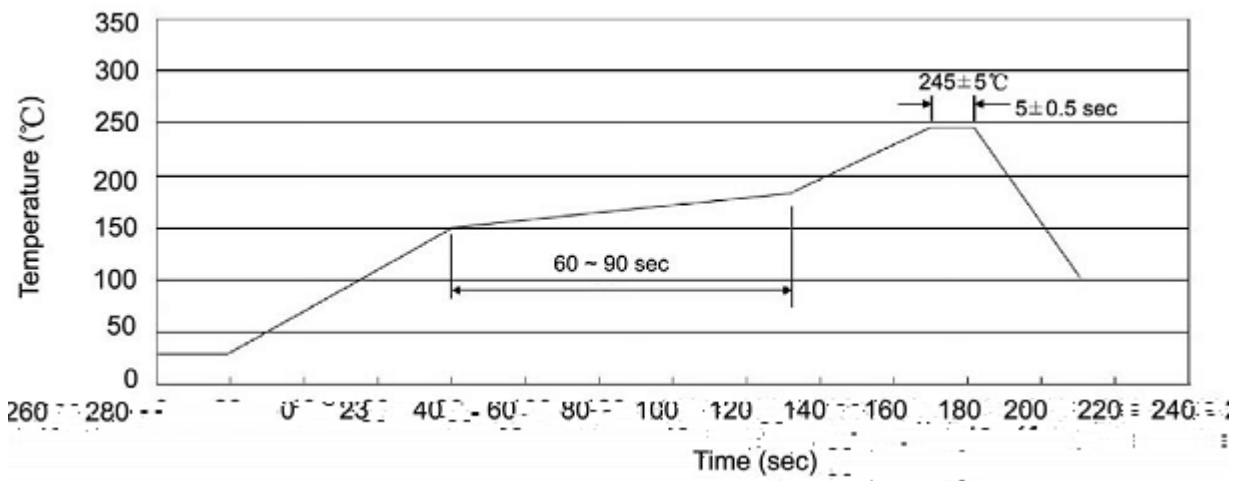
Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30Max	
L1	0.45	0.65	C1	0.90	1.20
A	1.15	1.50	c	0.05	0.20
B	2.70	3.10	K	0	0.10

70°	0.85	1.05	0.20MIN	7°
0.35	0.55			

BRCS2302AMA

Rev.B Mar.-2020

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 25 ~ 150°C，时间 60 ~ 90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:25~150°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed