RCS2302AMA
ev.B Mar.-2020

! " # $

8 9 : ; < =7 > ? @ A B C D E
6 7 2 F G H I J K L M N O 7 P L Q
R S T U V W

/ Descriptions

^ _ `a25 b c c d e f g h _^ i j k l W

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

/ Features

l J P L m n o p ; < q r s t 7 $u_{DS(ON)}$ v w x y z 7 ^ _ `a25 c d W

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

/ Applications

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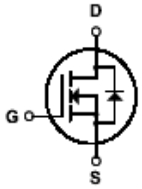
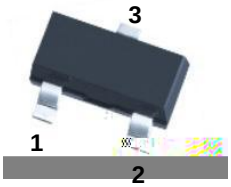
Battery management,High speed switch,low power DC to DC converter.

/ Equivalent Circuit



/ Pinning



PIN1 ¨ G PIN 2 ¨ S PIN 3 ¨ D

/ Marking

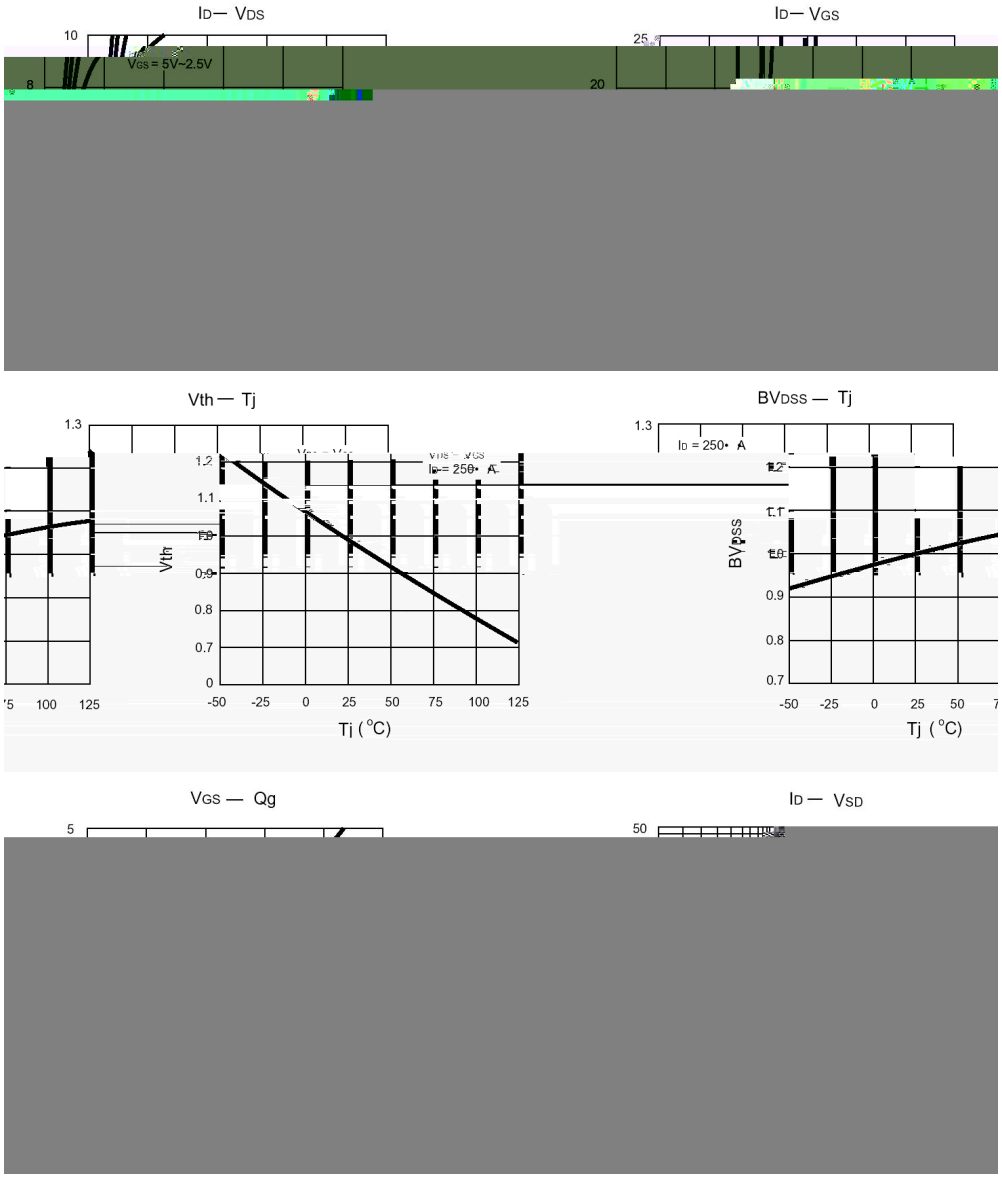
Marking	A2H

/ Absolute B ´

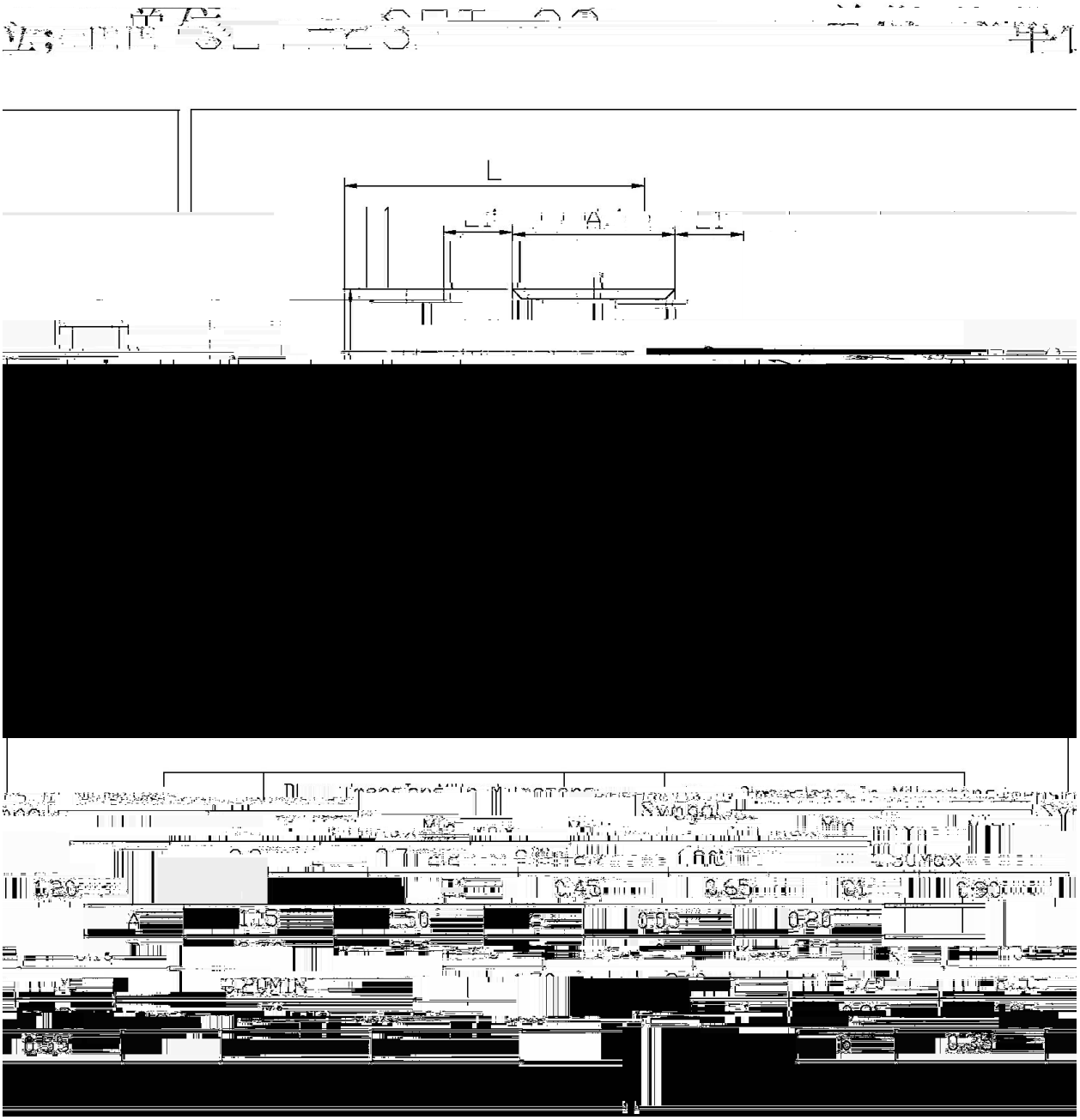
© ª Parameter	« ¬ Symbol	ª - Rating	® ¯ Unit
Drain-Source Voltage	V_{DSS}	20	V
Gate-Source Voltage	V_{GSS}	±10	V
Drain Current – Continuous	I_D	3.0	A
Pulsed Drain Current	I_{DM}	10	A
Continuous Source Current	I_S	0.95	A
Power Dissipation	P_D	0.9	W
Storage Temperature Range	T_{stg}	-55～150	℃

© ª Parameter	« ¬ Symbol	° ± ² ³ Test Conditions		´ z - Min	µ ¶ - Typ	´ · - Max	® ¯ Unit
Drain–Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS}=0	I_D=10μA	20	21		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{GS}=0	V_{DS}=20V			1.0	μA
Gate–Body Leakage.	I_{GSS}	V_{GS}=±10V	V_{DS}=0V			±100	nA
Static Drain–Source On–Resistance	$R_{DS(on)1}$	V_{GS}=4.5V	I_D=3.6A		46	55	mΩ
	$R_{DS(on)2}$	V_{GS}=2.5V	I_D=3.1A		59	75	mΩ
Forward Transconductance	g_{FS}	V_{DS}=5V	I_D=3.6A		6		S
Drain–Source Diode Forward Voltage	V_{SD}	V_{GS}=0V	I_D=1.25A			1.2	V
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS}	I_D=50μA	0.50		1.0	V
Turn–On Delay Time	$t_{d(on)}$	V_{DD}=10V V_{GEN}=4.5V R_{GEN}=6Ω	I_D=3.6A R_L=2.8Ω		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



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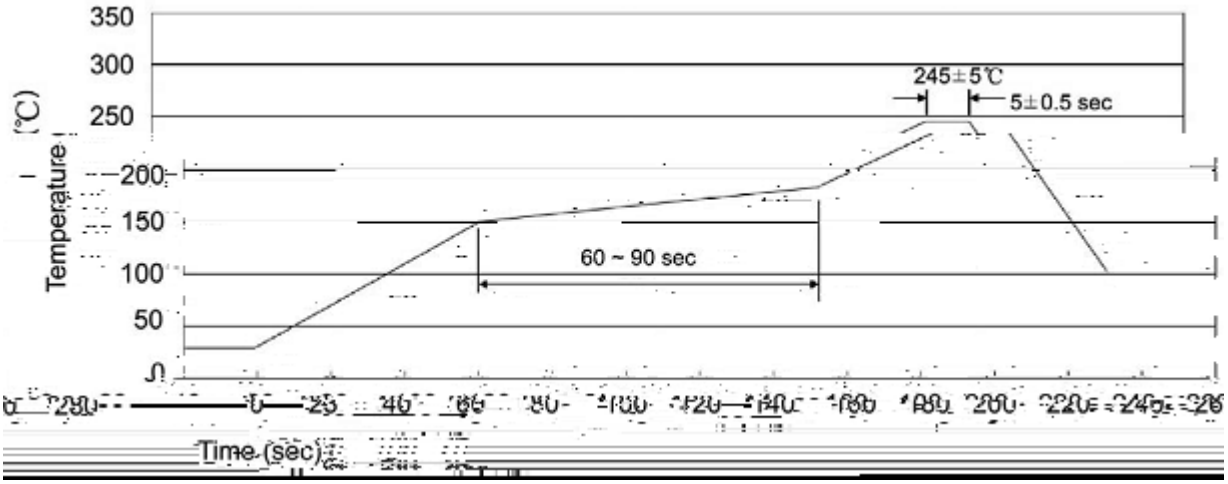
( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



	Note:
1 25 150 60 90sec;	1.Preheating:25~150 , Time:60~90sec.
2 245 5 5 0.5sec;	2.Peak Temp.:245 5 , Duration:5 0.5sec.
3 2 10 /sec.	3. Cooling Speed