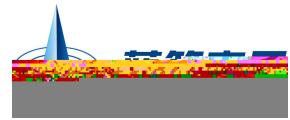


A	2021.9.29	ALL	BRCS2312MA BRCS2300MA		

BRCS2300MC

Rev.A Sep.-2021



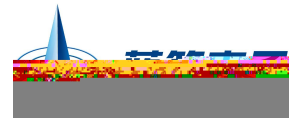
DATA SHEET

SOT23-3 N MOS

N- CHANNEL MOSFET in a SOT23-3 Plastic Package.

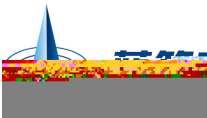
RDS(ON) SOT23-3

Low RDS(ON),SOT23-3 package,HF Product.



Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	20	V
Gate-Source Voltage		V_{GSS}	± 10	V
Drain Current – Continuous		I_D	4.5	A
Pulsed Drain Current		I_{DM}	12	A
Power Dissipation		P_D	1.4	W
Storage Temperature Range		T_{stg}	-55~150	$^{\circ}\text{C}$
Maximum Junction-to-Ambient	$t \leq 10\text{s}$	$R_{\theta JA}$	90	$^{\circ}\text{C/W}$
Maximum Junction-to-Ambient	Steady-State		125	
Maximum Junction-to-Lead	Steady-State	$R_{\theta JL}$	80	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0$ $I_D=250\mu\text{A}$	20	21.5		V
Zero Gate Voltage Drain Current	I_{DSS}					



Parameter	Symbol	Test Conditions	Min	Typ	Max
Total Gate Charge	Qg(10V)	$V_{GS}=10V, \quad V_{DS}=V_{DD}$ $I_D=4.5A$			
Total Gate Charge	Qg(4.5V)				
Gate Source Charge	Qgs				
Gate Drain Charge	Qgd				
Turn-On Delay Time					
Turn-On Rise Time					
Turn-Off Delay Time					
Turn-Off Fall Time					

/ Electrical Characteristic Curve

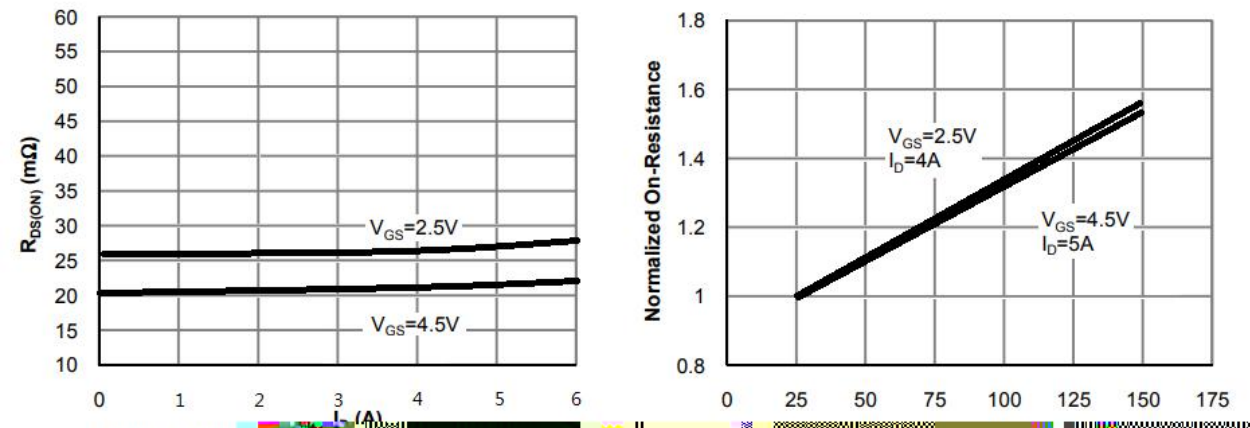
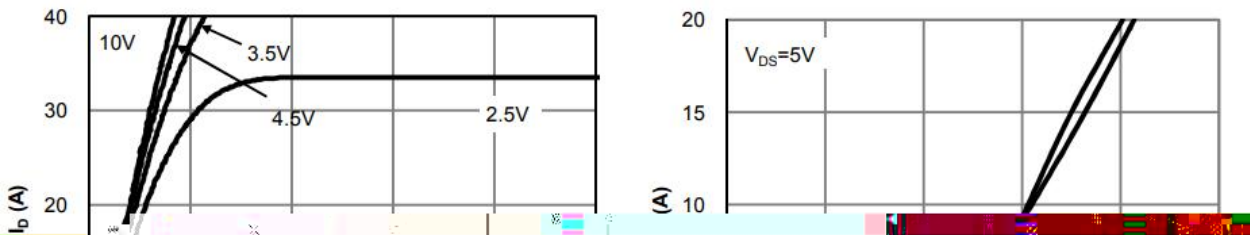
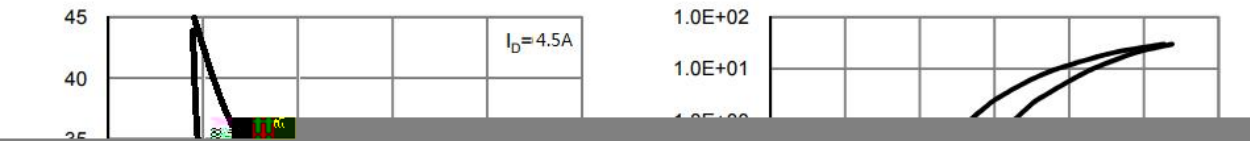


Figure 3: On-Resistance



/ Electrical Characteristic Curve

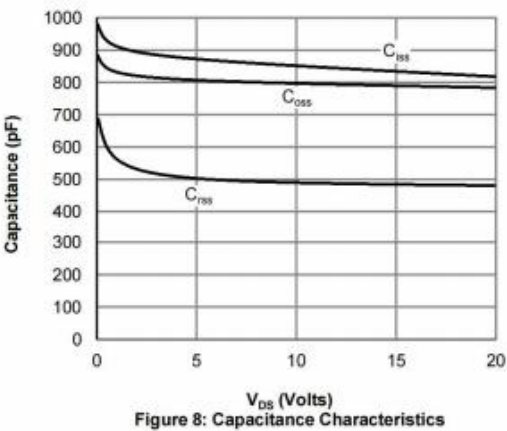
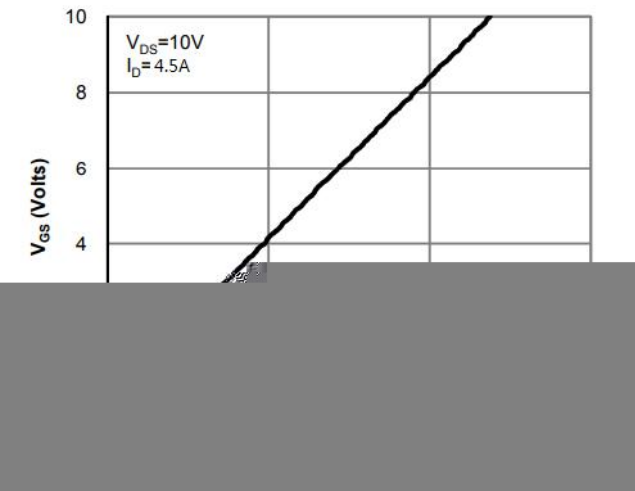
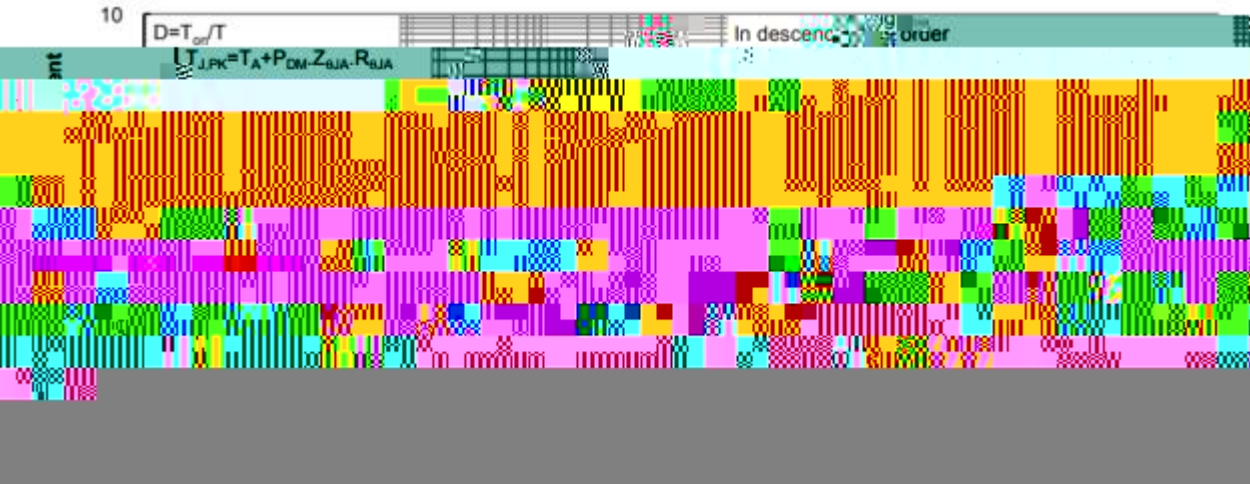
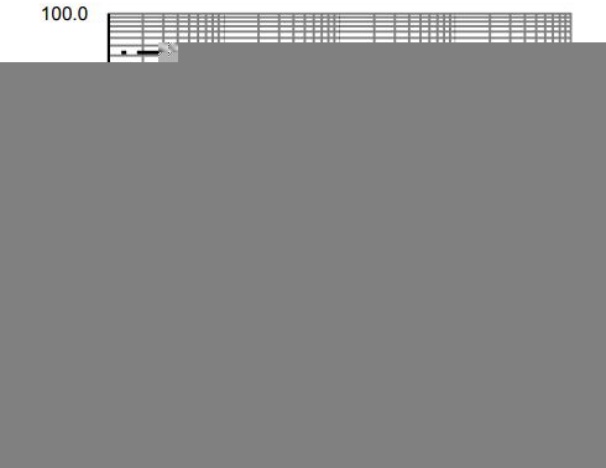
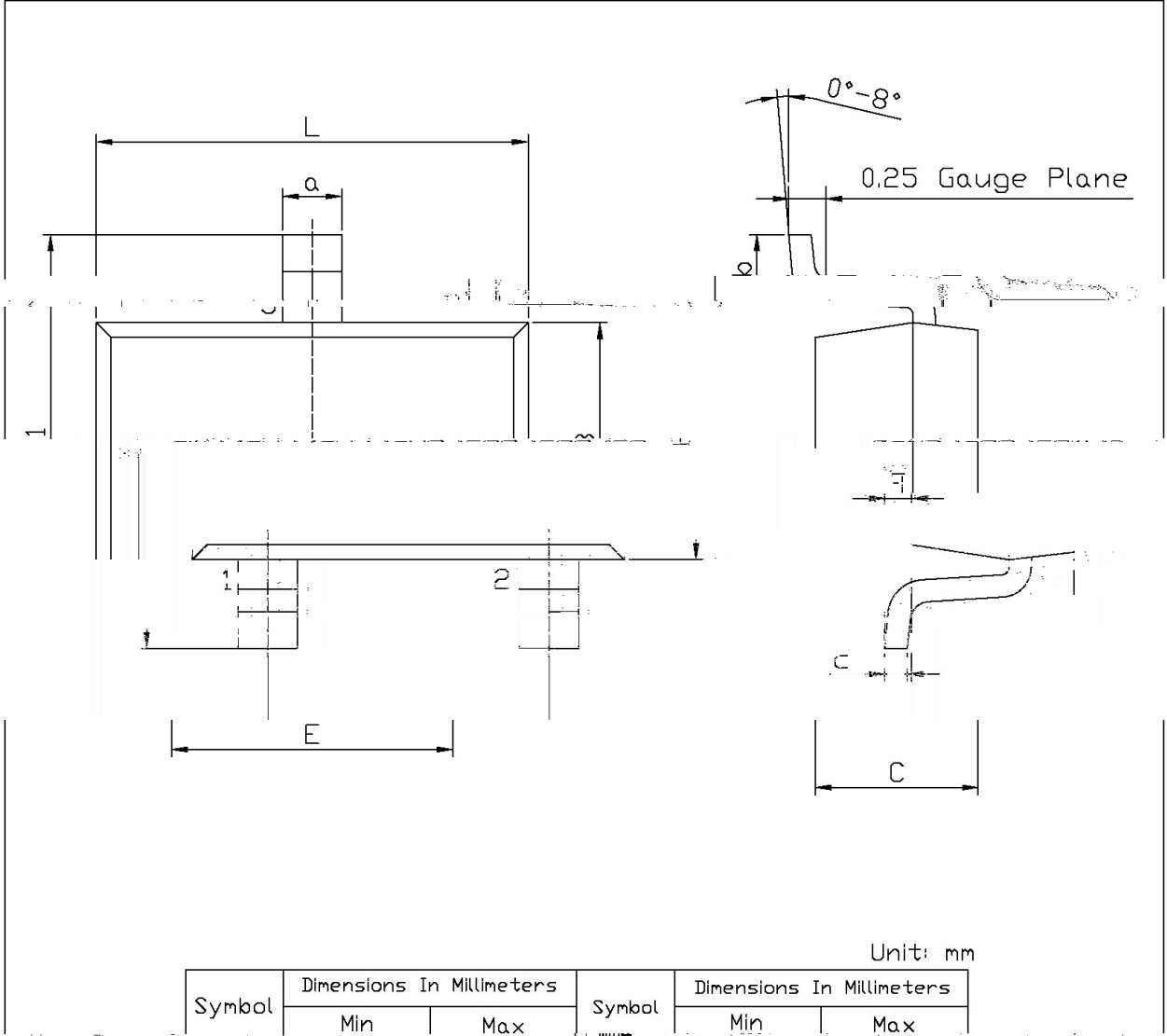


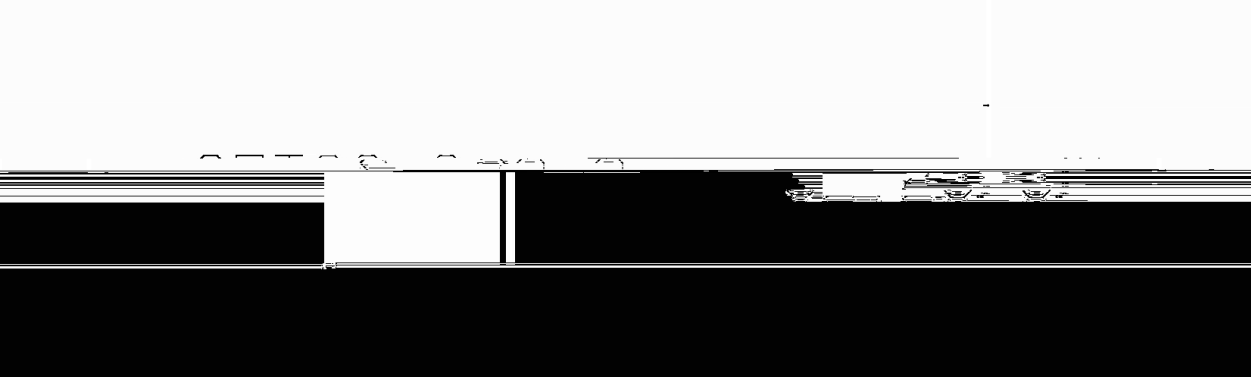
Figure 8: Capacitance Characteristics



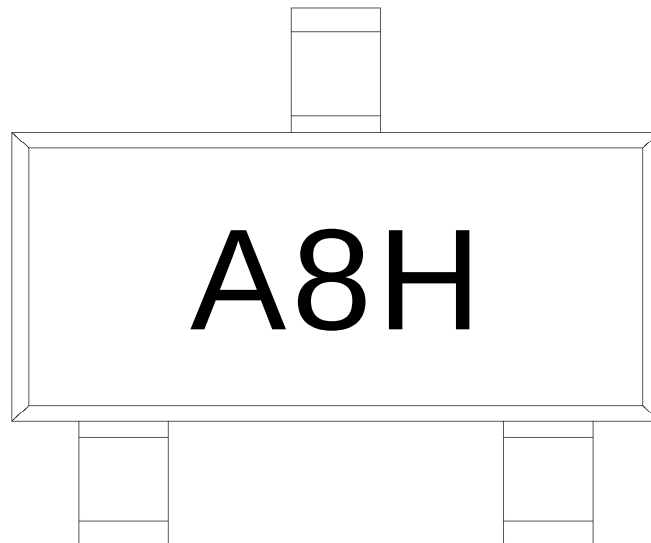
/ Package Dimensions



Unit: mm					
Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
0.35	0.50		L	2.82	3.02
0.10	0.20		a	0.40	0.70
0.10	0.20		E	1.80	2.30
0.10	0.20		C	0.40	0.70



/ Marking Instructions



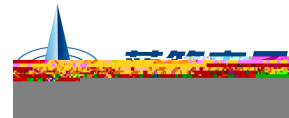
A8:

H:

Note:

A8 Product Type Code

H: Company Code.



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

Note:

- 1 150 180 60 90sec;
- 2 245±5 5±0.5sec;
- 3 2 10°C/sec.

- 1.Preheating:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

/ Resistance to Soldering Heat Test Conditions

260±5W g

10±1 sec.

Temp.:260±5°C

Time:10±1 sec