

BRC5N10MC

Rev.E Apr.-2024



DATA SHEET

SOT23-3 N

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

$V_{DS}=100V$ $I_D=5A$

$R_{DS(on)1}@10V$ 175m (Type.120m)

$R_{DS(on)2}@4.5V$ 235m (Type.150m)

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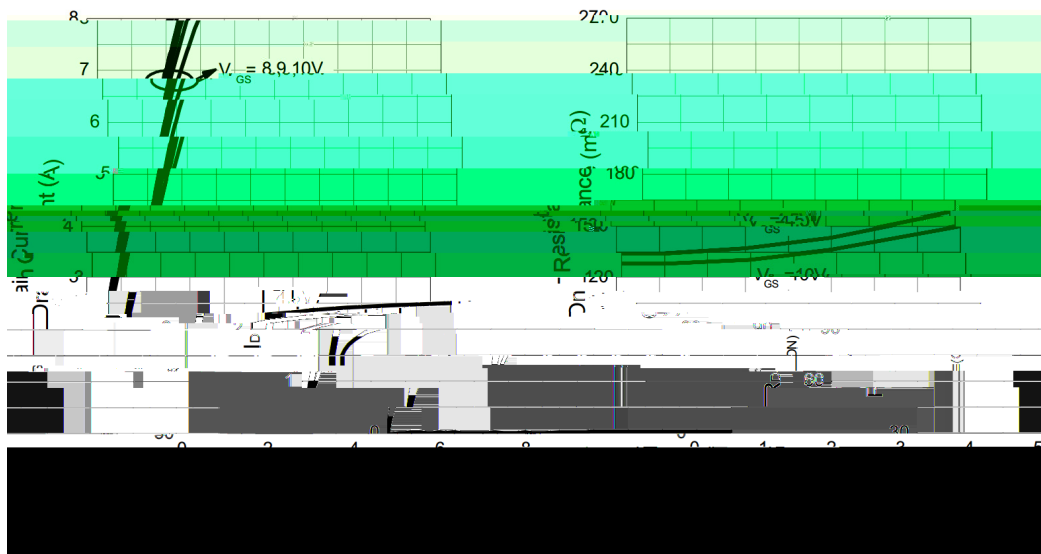
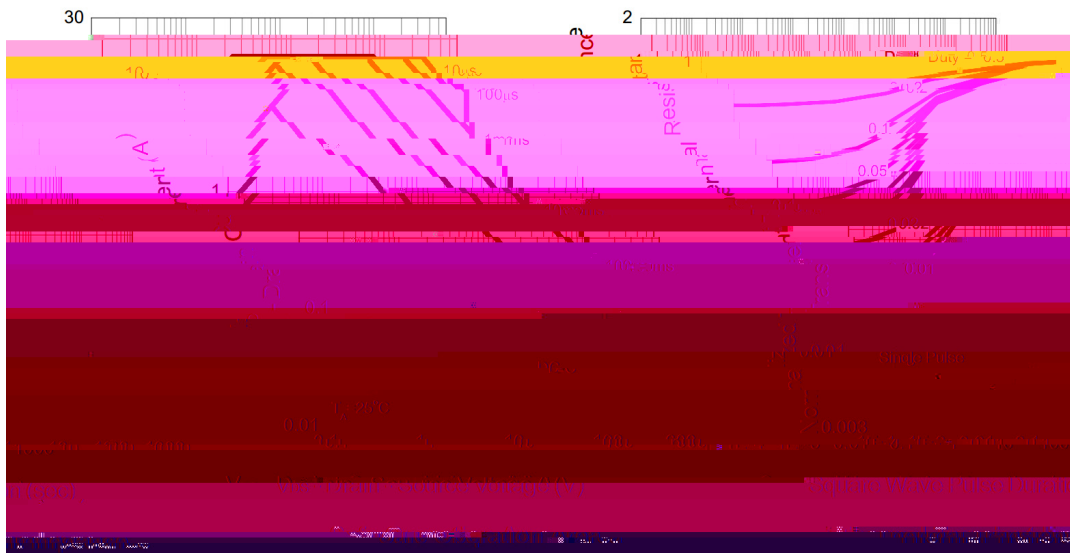
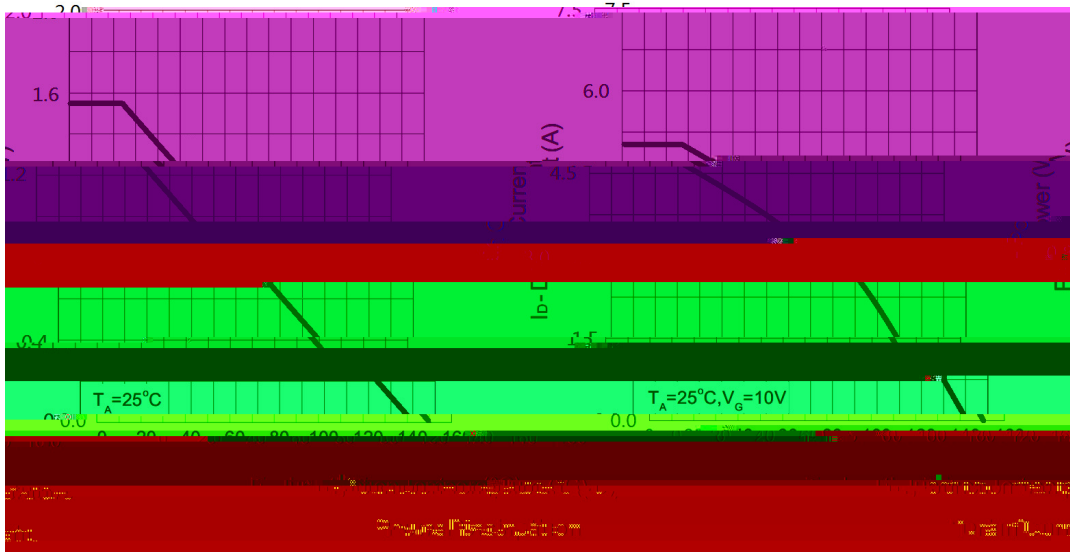


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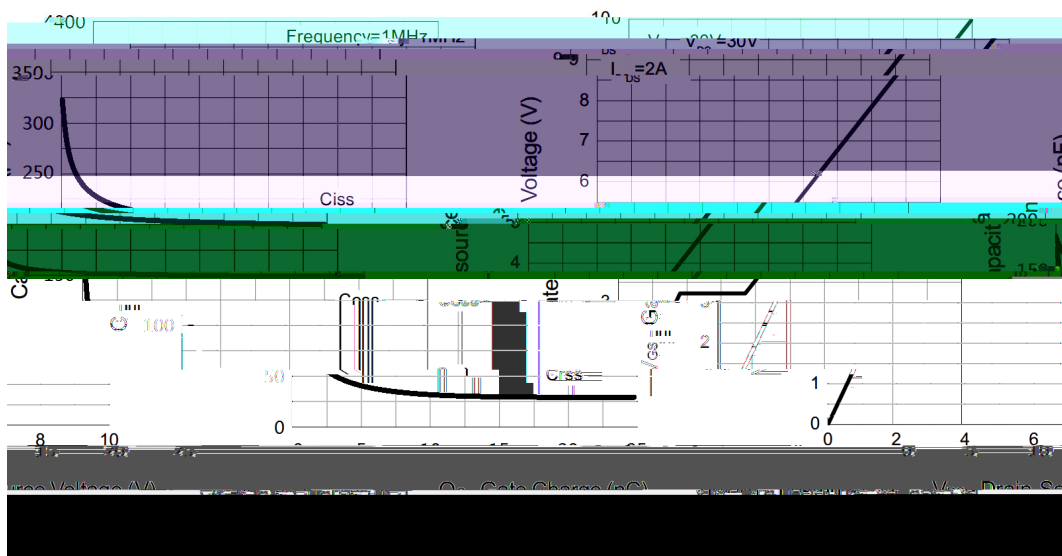
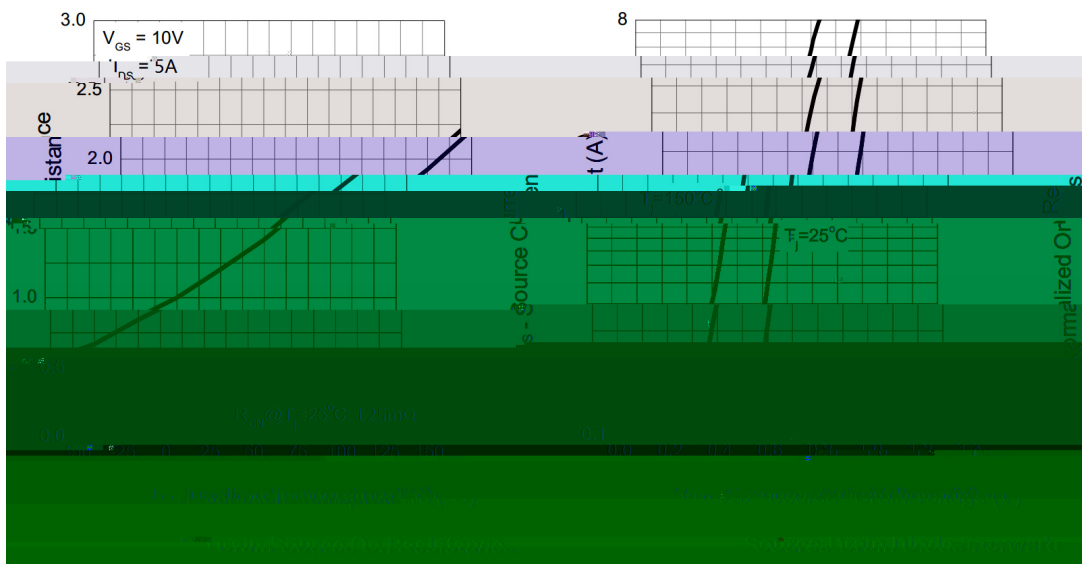
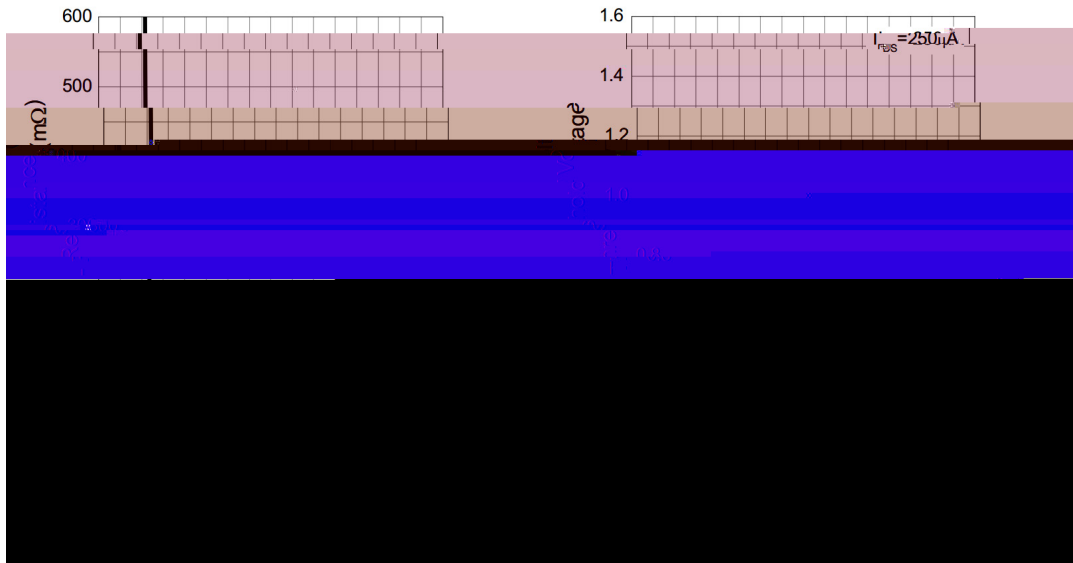
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	100	V
Gate-Source Voltage	V_{GSS}	± 20	V
Maximum Drain Current - Continuous	I_D	5.0	A
Drain Current- Pulsed	I_{DM}	15	A
Power Dissipation	P_D	1.55	W
Maximum Junction Temperature	T_J	150	
Storage Temperature Range	T_{STG}	-55 to 150	
Maximum Resistance –Junction to Ambient	R_{JA}	80.7	/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_{DS}=250\mu A$	100			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=100V$ $V_{GS}=0V$			1	μA
Gate–Body Leakage.	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 10	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_{DS}=250\mu A$	1		3	V
Static Drain–Source On–Resistance	$R_{DS(on)(1)}$	$V_{GS}=10V$ $I_D=5A$		120	175	m
	$R_{DS(on)(2)}$	$V_{GS}=4.5V$ $I_D=2A$		150	235	m
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_F=1A$			1.3	V
Input Capacitance	C_{iss}	V_{DS}				

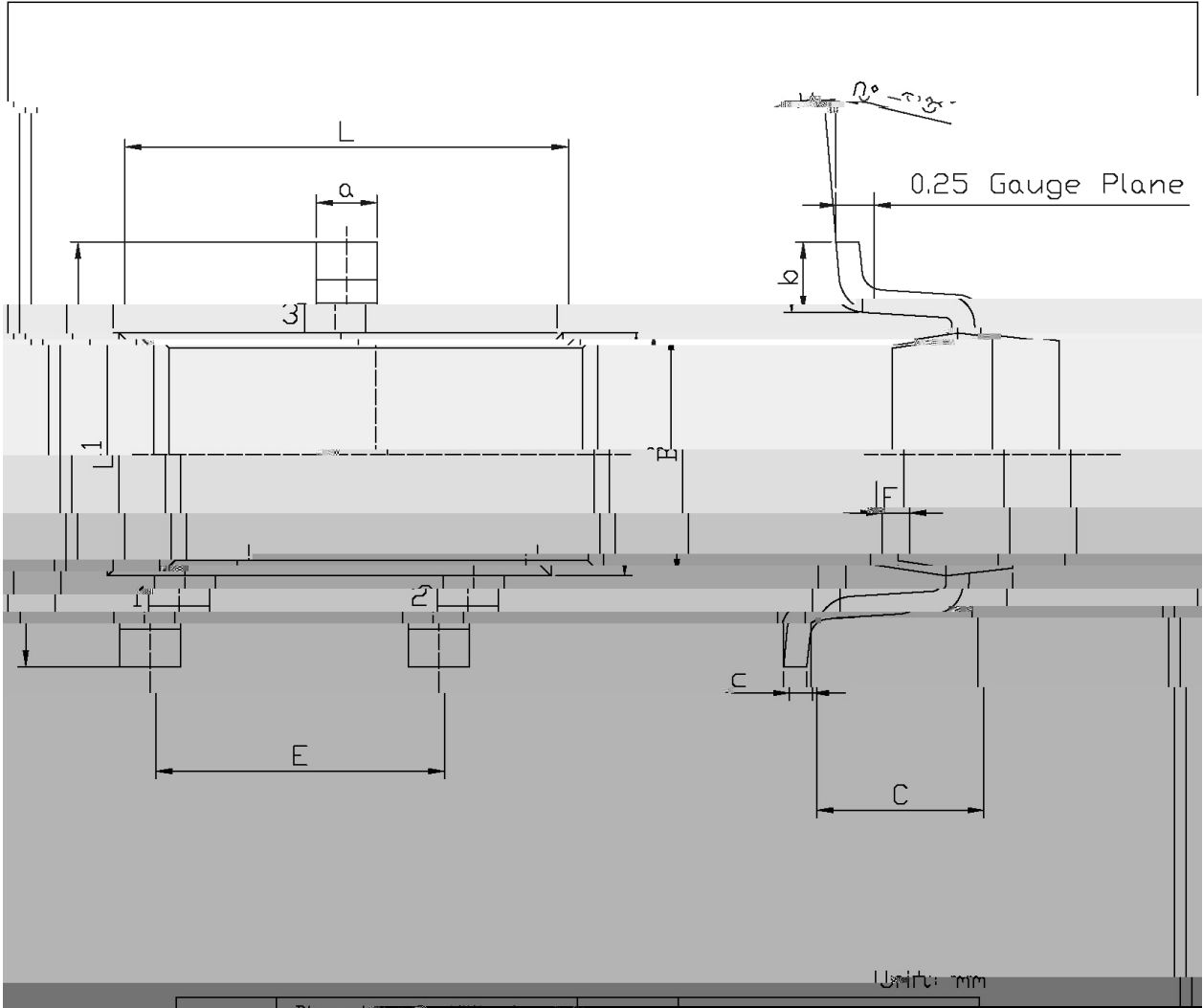
/ Electrical Characteristic Curve



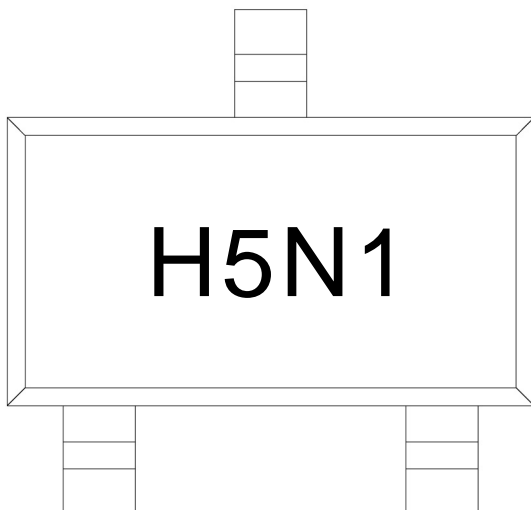
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



H:

5N1

Note:

H Company Code

5N1: Product Type Code

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Note:

- | | | | |
|---|---------|-----------|---|
| 1 | 150 180 | 60 90sec; | 1.Preheating:150~180 , 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: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260±5	10±1 sec.	Temp.:260±5	Time:10±1 sec
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/ Packaging SPEC.

/ REEL

Package Type	Units	Dimension	(unit mm ³)
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