

BRCS5N10MCQ

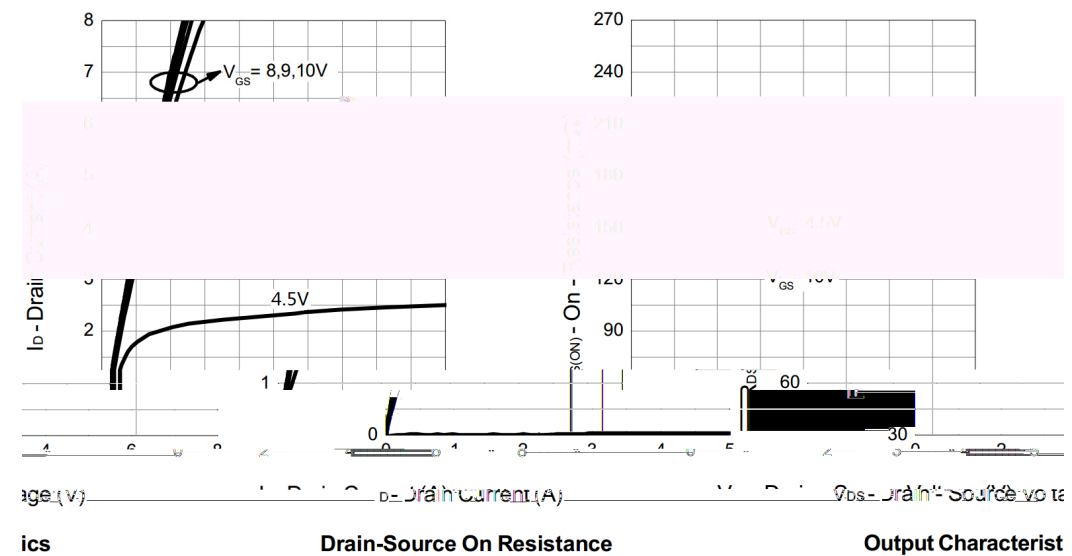
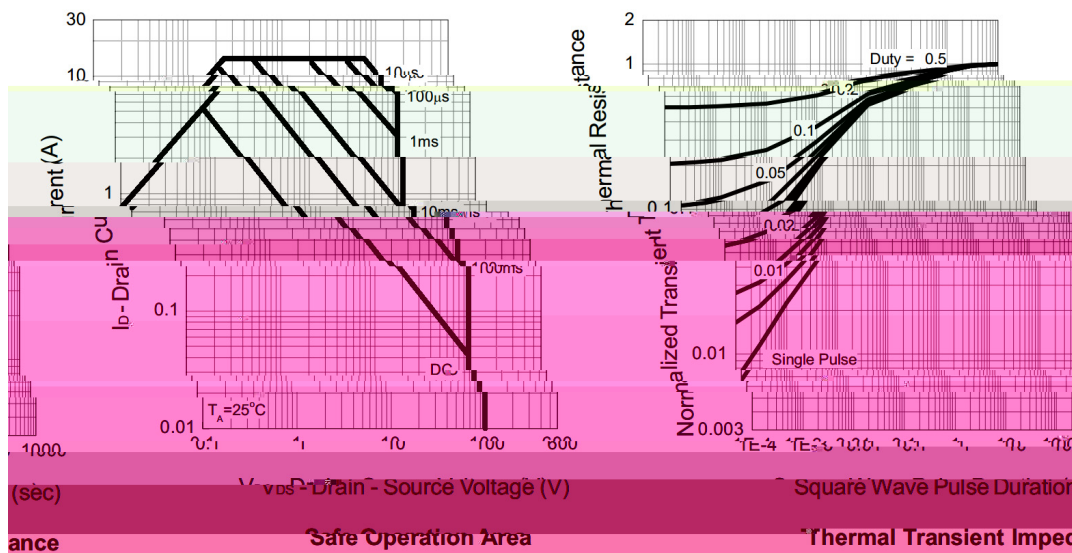
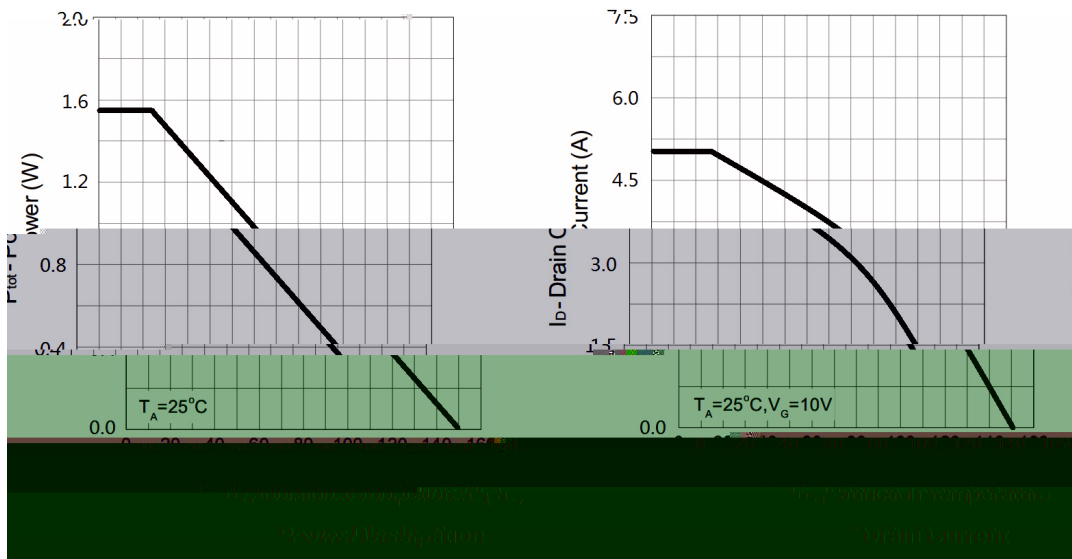
/ Absolute Maximum Ratings(Ta=25)

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

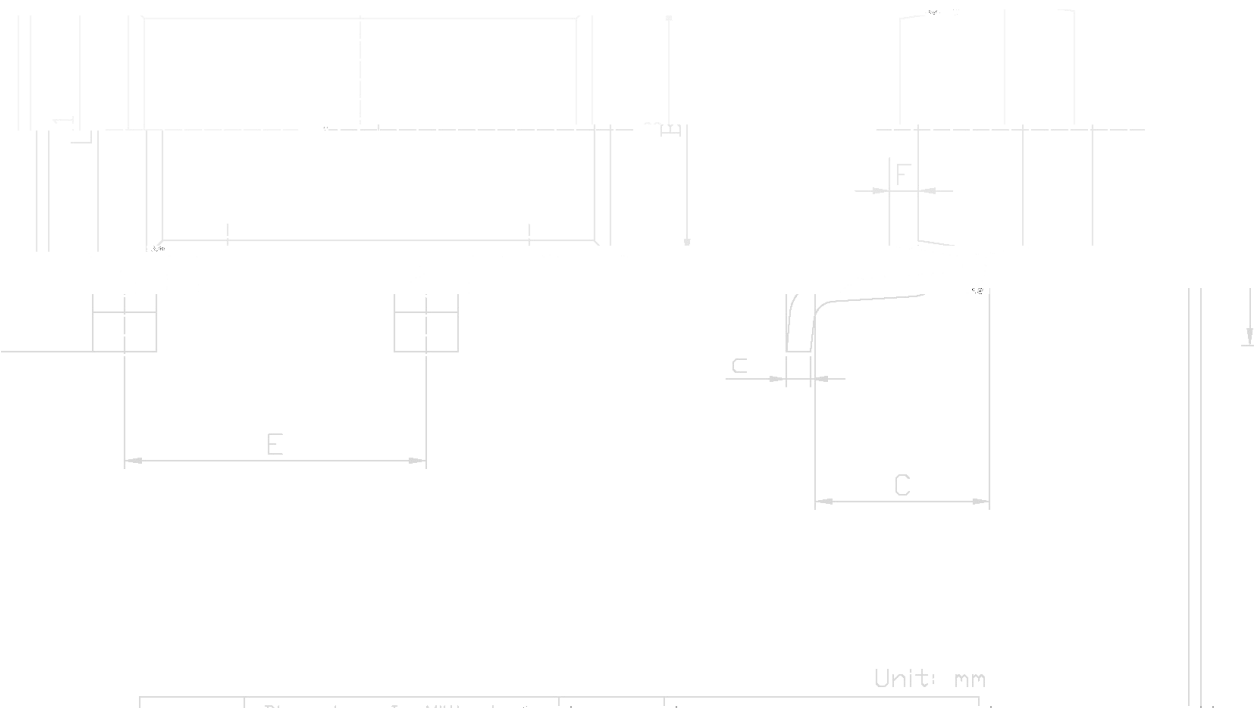
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V I _{DS} =250μA	100			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =100V V _{GS} =0V			1	μA
Gate–Body Leakage.	I _{GSS}	V _{GS} =±20V V _{DS} =0V			±10	μA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} I _{DS} =250μA	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} =0V V _{GS} =25V f=1.0MHz		200		pF
Output Capacitance	C _{oss}			150		pF
Reverse Transfer Capacitance	C _{rss}			30		pF
Turn–On Delay Time	t _{d(on)}	I _{DS} =1A V _{GEN} =10V V _{DD} =30V R _L =30 R _G =6		11		ns
Turn–On Rise Time	t _r			10		ns
Turn–Off Delay Time	t _{d(off)}			21		ns
Turn–Off Fall Time	t _f			5		ns
Total Gate Charge	Q _g	V _{DS} =50V V _{GS} =10V I _{DS} =5A		9.5		nC
Gate- Source Charge	Q _{gs}			1.9		nC
Gate- Drain Charge	Q _{gd}			2.1		nC

/ Electrical Characteristic Curve



/ Package Dimensions



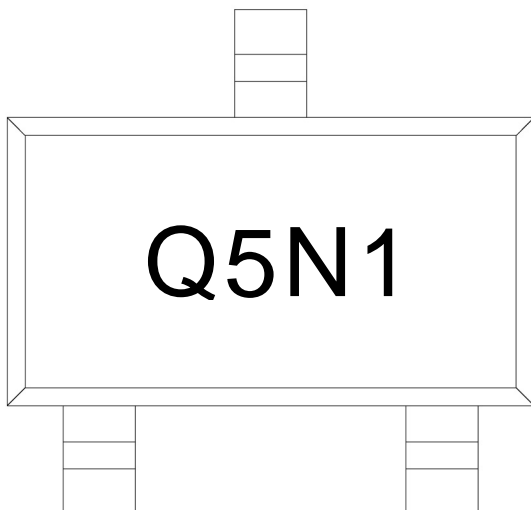
Unit: mm

Dimensions in Millimeters

A	2.82	3.00	a	0.25	0.50
B	1.50	1.70	c	0.10	0.20
C	0.90	1.30	b	0.35	0.55
L1	2.60	3.00	F	0	0.15
F ₁	1.80	2.00			

SOT23-3

/ Marking Instructions



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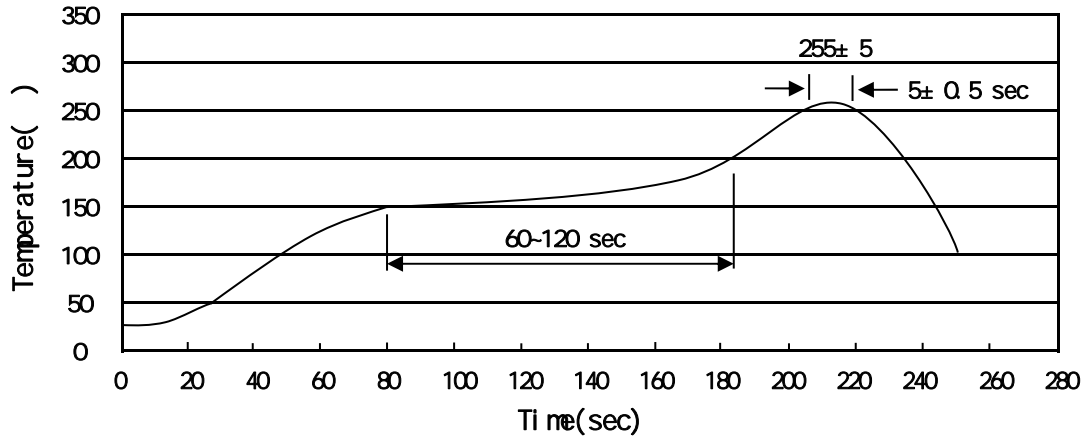
5N1

Note:

Q: Automobile halogen-free product Code

5N1: Product Type Code

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



Note:

- 1 150 200 60 120sec; 1.Preheating:150~200 , Time:60~120sec.
- 2 255±5 5±0.5sec; 2.Peak Temp.:255±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

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT23-3	3,000	10	30,000	4	120,000	7" x8	210x205x205	445x435x230

/ Notices