



Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	80	V
Drain Current - Continuous		I_D	280	A
Drain Current - Continuous		$I_D(T_c=100^{\circ}\text{C})$	186	A
Drain Current – Pulsed		I_{DM}	1000	A
Gate-Source Voltage		V_{GS}	± 20	V
Power Dissipation		P_{tot}	208	W
Continuous-Source Current		I_S	280	A
Single Pulse Avalanche Energy($V_{DD}=40\text{V}, L=0.1\text{mH}$)		E_{AS}	1605	mJ
Junction and Storage Temperature Range		T_j, T_{stg}	-55 to 175	
Thermal resistance, junction - ambient	Steady-State	$R_{\theta JA}$	32.8	/ W
Thermal resistance, junction - case	Steady-State	$R_{\theta JC}$	0.45	

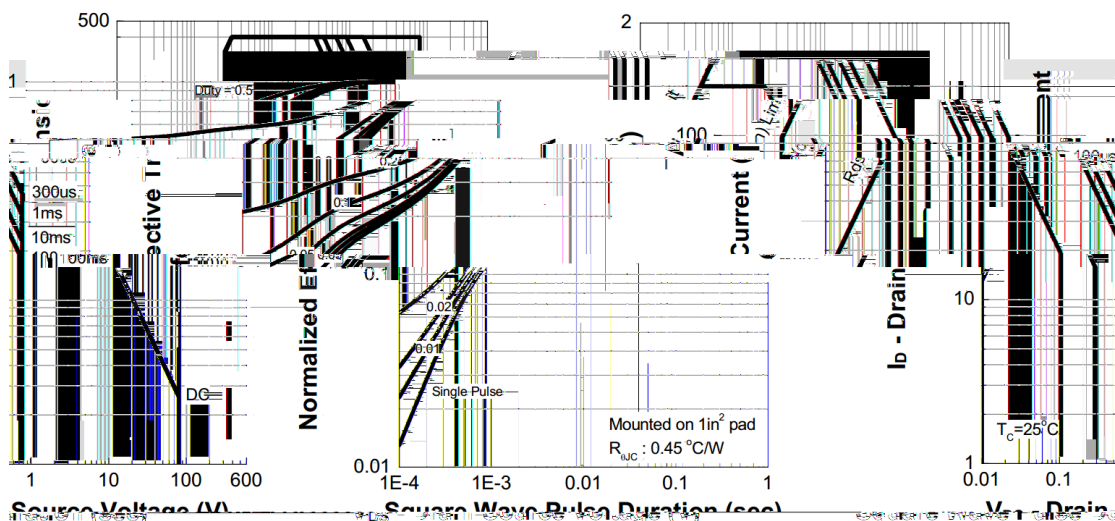
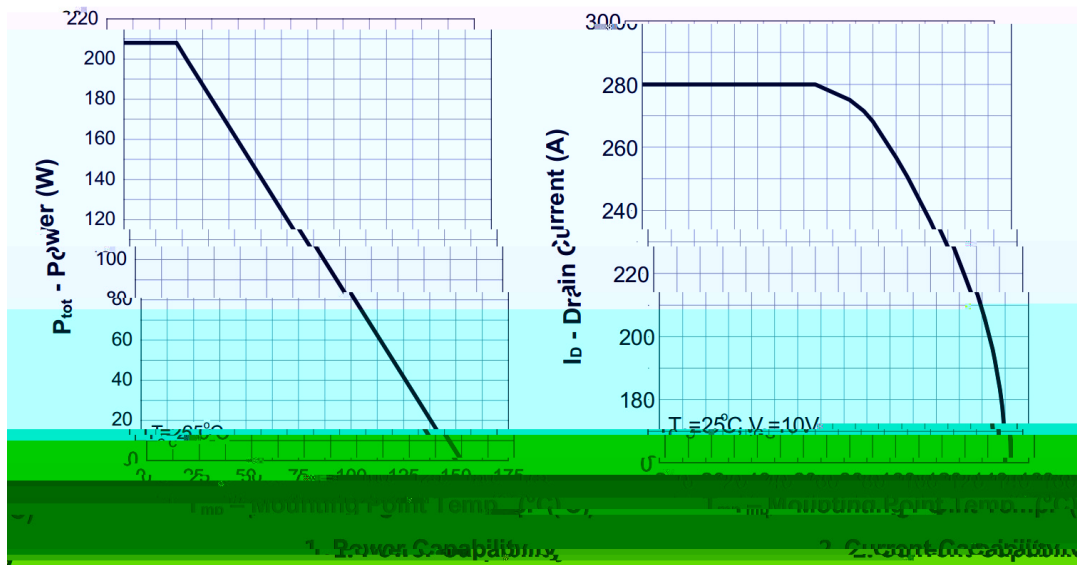
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D=250\mu\text{A}, V_{GS}=0\text{V}$	80	95		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=80\text{V}, V_{GS}=0\text{V}$			1	μA
Gate-Body leakage current	I_{GSS}	$V_{DS}=0\text{V}, V_{GS}=\pm 20\text{V}$			± 100	nA

D8St


/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=40V$ $R_L=1.3\ \Omega$ $R_G=4.5\ \Omega$ $I_{DS}=30A$		32		ns
Turn-On Rise Time	t_r			115		
Turn-Off Delay Time	$t_{d(off)}$			93		
Turn-Off Fall Time	t_f			140		
Reverse Recovery Time	t_{rr}	$I_{DS} = 30\ A, V_{GS} = 0\ V$ $dI_{SD}/dt = 100\ A/\mu s$		80		nS
Reverse Recovery Charge	Q_{rr}			196		nC

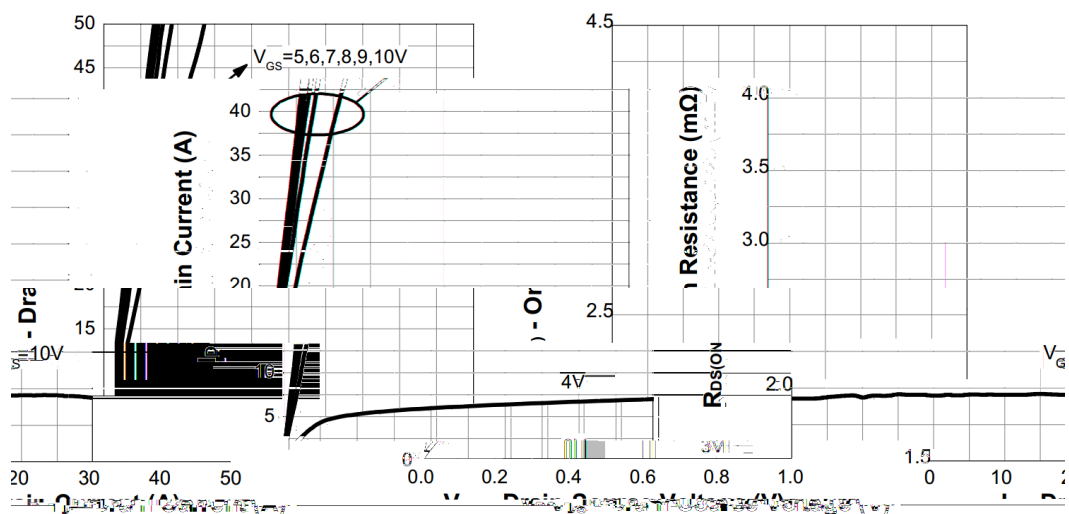
/ Electrical Characteristic Curve



Impedance

3. Safe Operating Area

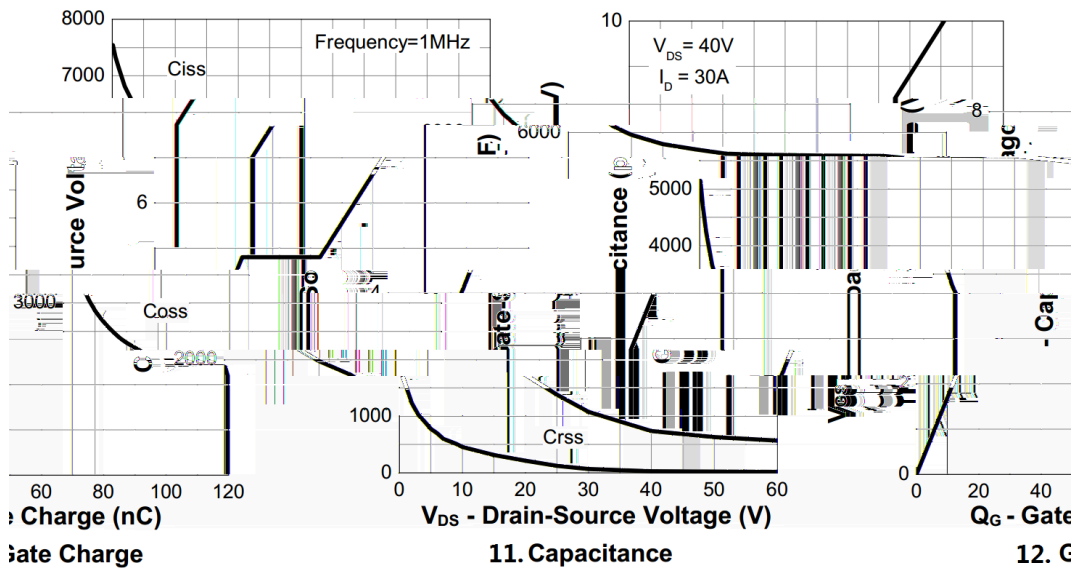
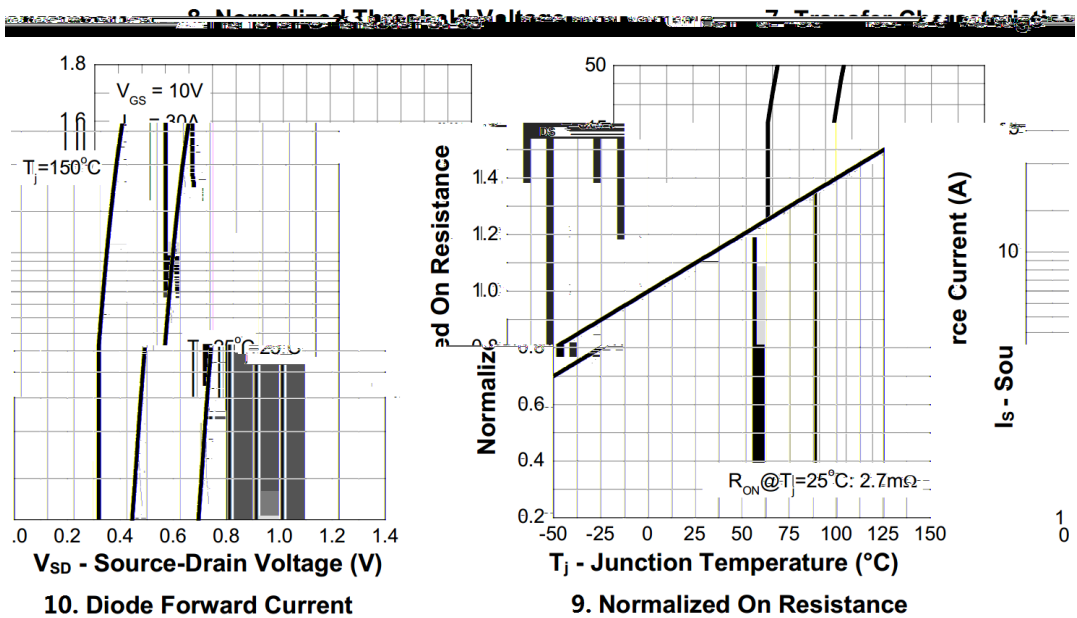
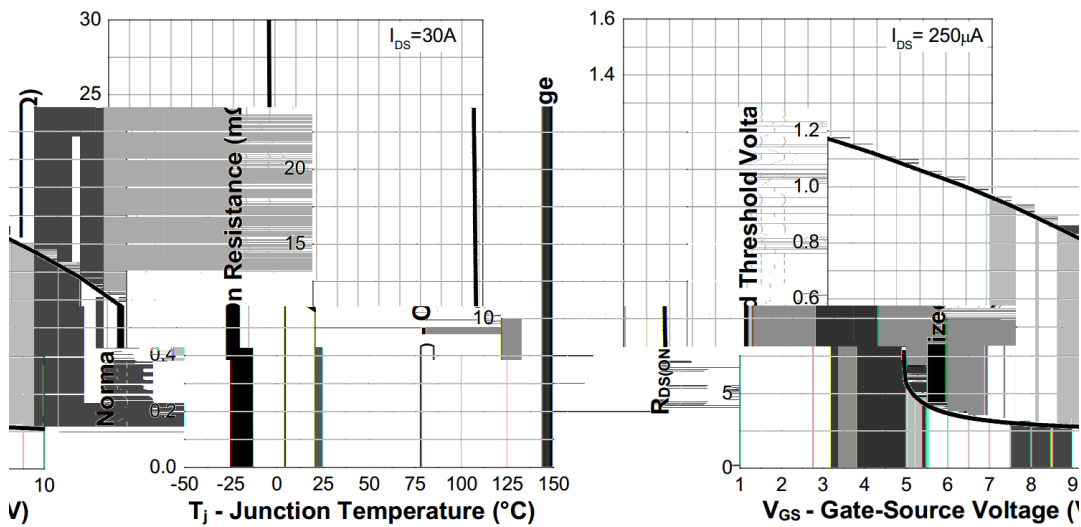
4. Transient Thermal



6. On Resistance

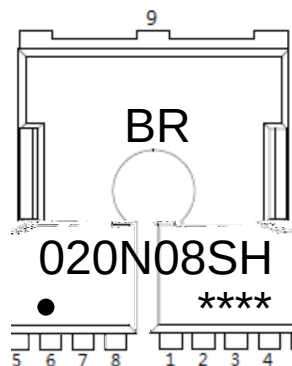
5. Output Characteristics

/ Electrical Characteristic Curve





/ Marking Instructions



020N08SH

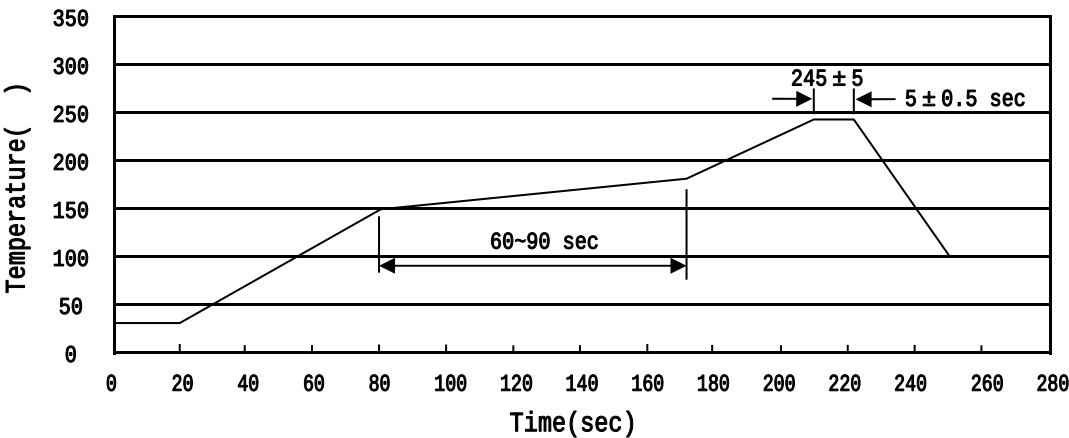
Note

BR Company Code

020N08SH Product Type Code

****: Lot No. Code, code change with Lot No

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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

/ Packaging SPEC.

/ REEL

Package Type	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
TOLL-8L	2,000	1	2,000	6	12,000	13"×24	360×360×50	380×335×366

/ Notices