

BR80N08A

Rev.C Jul.-2018

/ Descriptions

TO-220 N MOS N-CHANNEL MOSFET in a TO-220 Plastic Package.

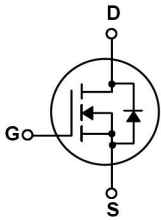
/ Features

Low gate charge, low crss, fast switching.

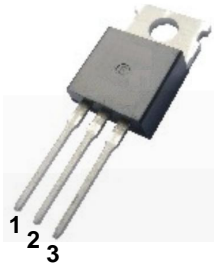
/ Applications

These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

/ Equivalent Circuit



/ Pinning



PIN1 G

PIN 2 D

PIN 3 S

/ h_{FE} Classifications & Marking

See Marking Instructions.

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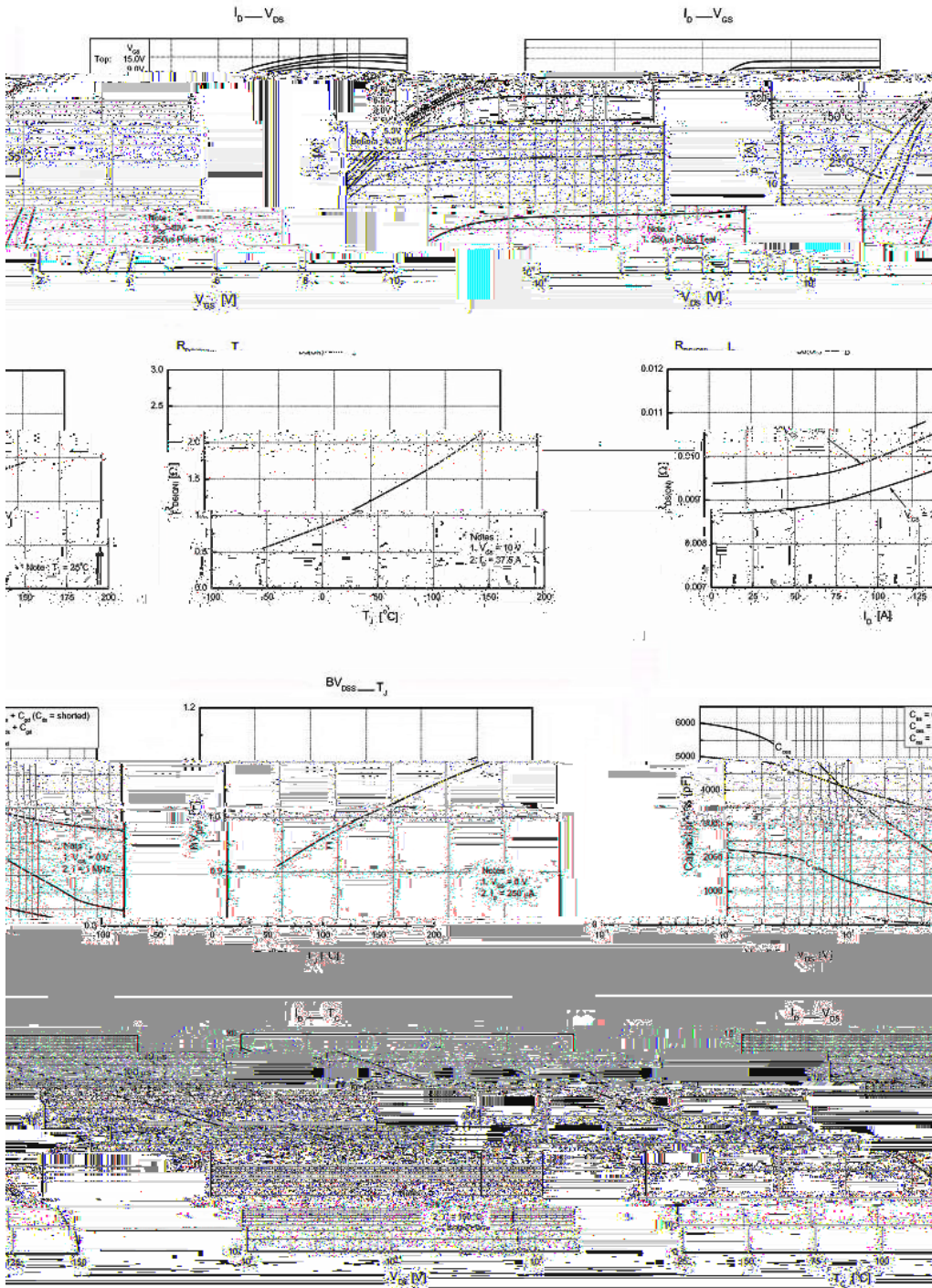
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	80	V
Drain Current	$I_D(T_c=25^\circ\text{C})$	100	A
Drain Current	$I_D(T_c=100^\circ\text{C})$	72	A
Peak Drain Current	I_{DM}	320	A
Gate-Source Voltage	V_{GSS}	± 20	V
Repetitive Avalanche Energy	E_{AS}	790	mJ
Repetitive Avalanche Energy	E_{AR}	13.1	mJ
Avalanche Current	I_{AR}	75	A
Total Power Dissipation	$P_D(T_c=25^\circ\text{C})$	165	W

Junction and Stor3.168 18.48 refBT10.5 .6837 Tw[165)-5.3(W) Tc[(T)107.1(c=96ratu3 Tm1(e R00035(ang.00033

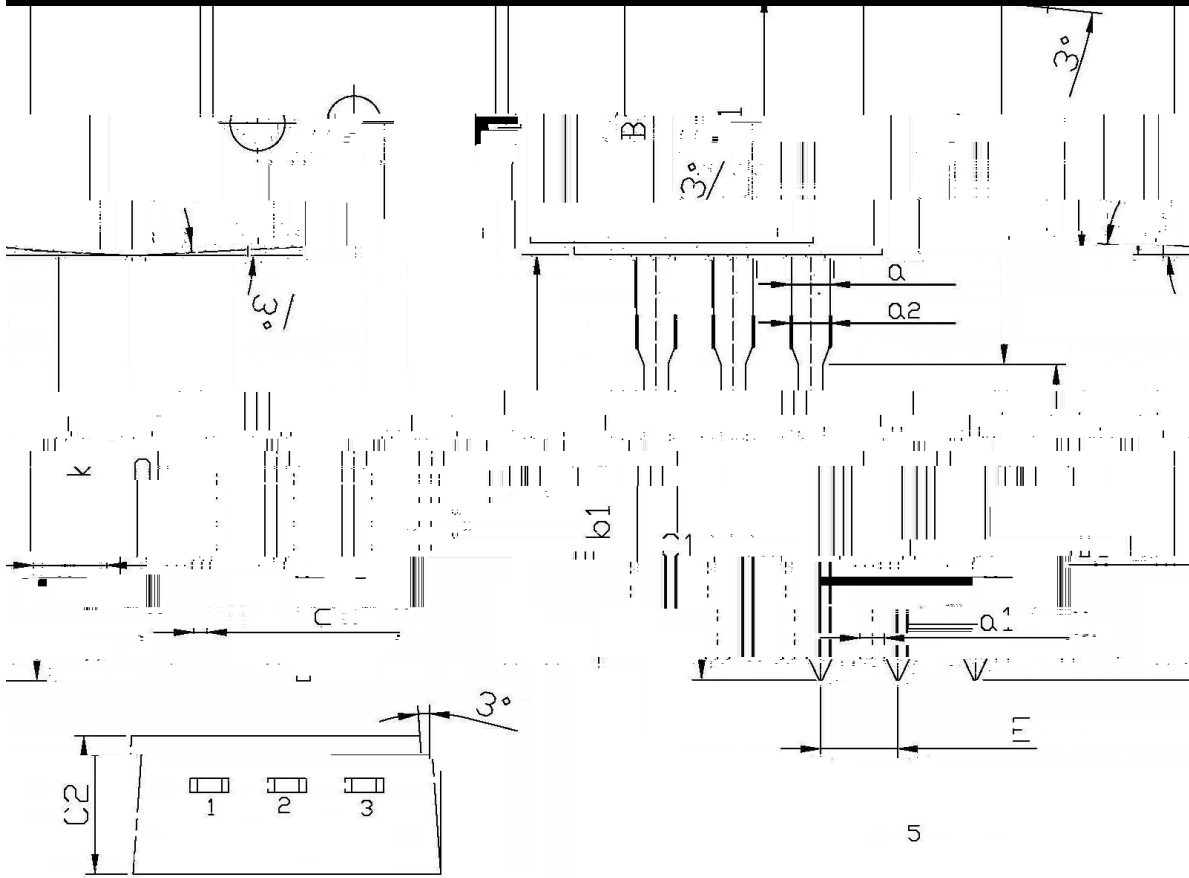
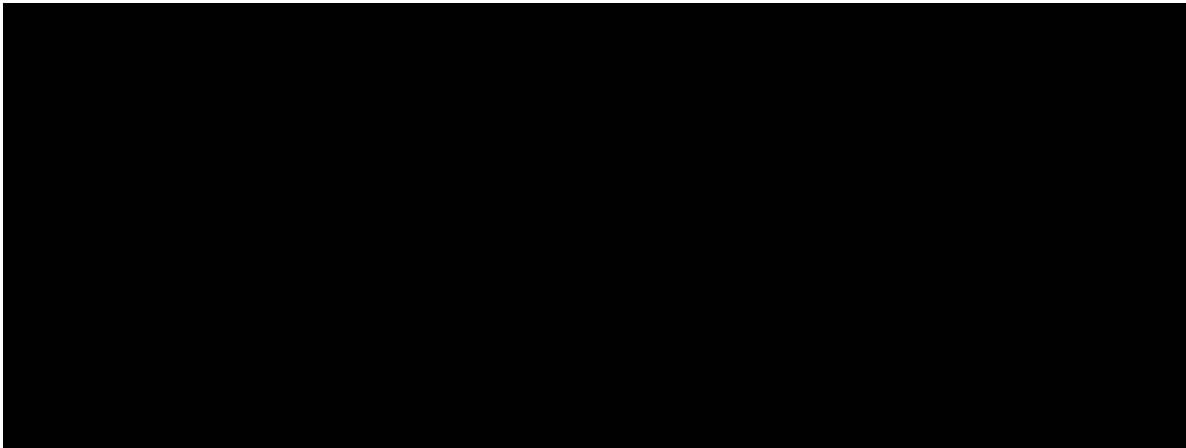
/ Source Drain diode

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward On Voltage	V_{SD}	$V_{GS}=0V$ $I_S=40A$			1.3	V
Reverse Recovery Time	t_{rr}	$I_S=40A$ $V_{GS}=0V$		48		ns
Reverse Recovery charge	Q_{rr}	$di/dt=100A/us$		105		nC

/ Electrical Characteristic Curve

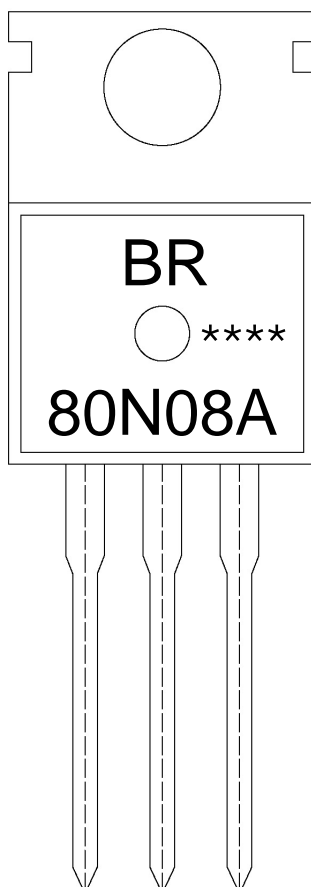


/ Package Dimensions



Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
Δ	9.8	10.2	C	1.2	1.4
Δ_2	3.56	3.84	B_1	0.63	0.97
J	15.7	16.1	B_2	9.0	9.4
b	12.6	13.6	C_1	2.2	2.6
b_1	9.6	10.6	a_1	0.7	0.9
ϕ	0.4	0.4	a_2	0.2	0.4
ϕ_1	0.4	0.4	E	2.34	2.74
ϕ_2	0.4	0.4	C_2	0.2	0.4
ϕ_3	0.4	0.4	Q_2	1.25	1.45

/ Marking Instructions



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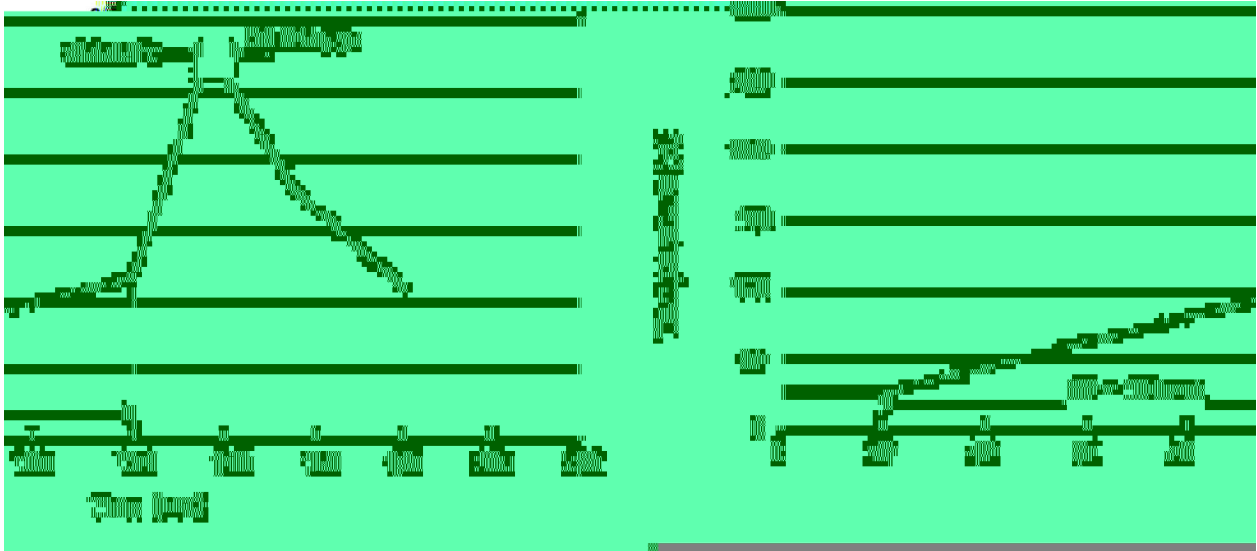
Note:

BR: Company Code

80N08A: Product Type.

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

() / Temperature Profile for Dip Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-----|-----|----|----------|---|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 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

270 5 10 1 sec. Temp.:270±5°C Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Bag 袋	Inner Box 盒	Outer Box 箱
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

/ Notices