

/ Descriptions

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

/ Features

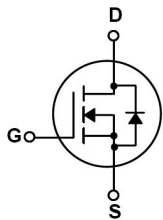
Low gate charge, low crss, fast switching.

/ Applications

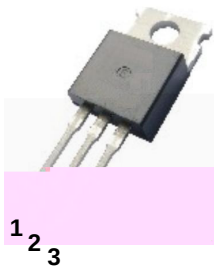
DC/DC

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.

BR80N08A

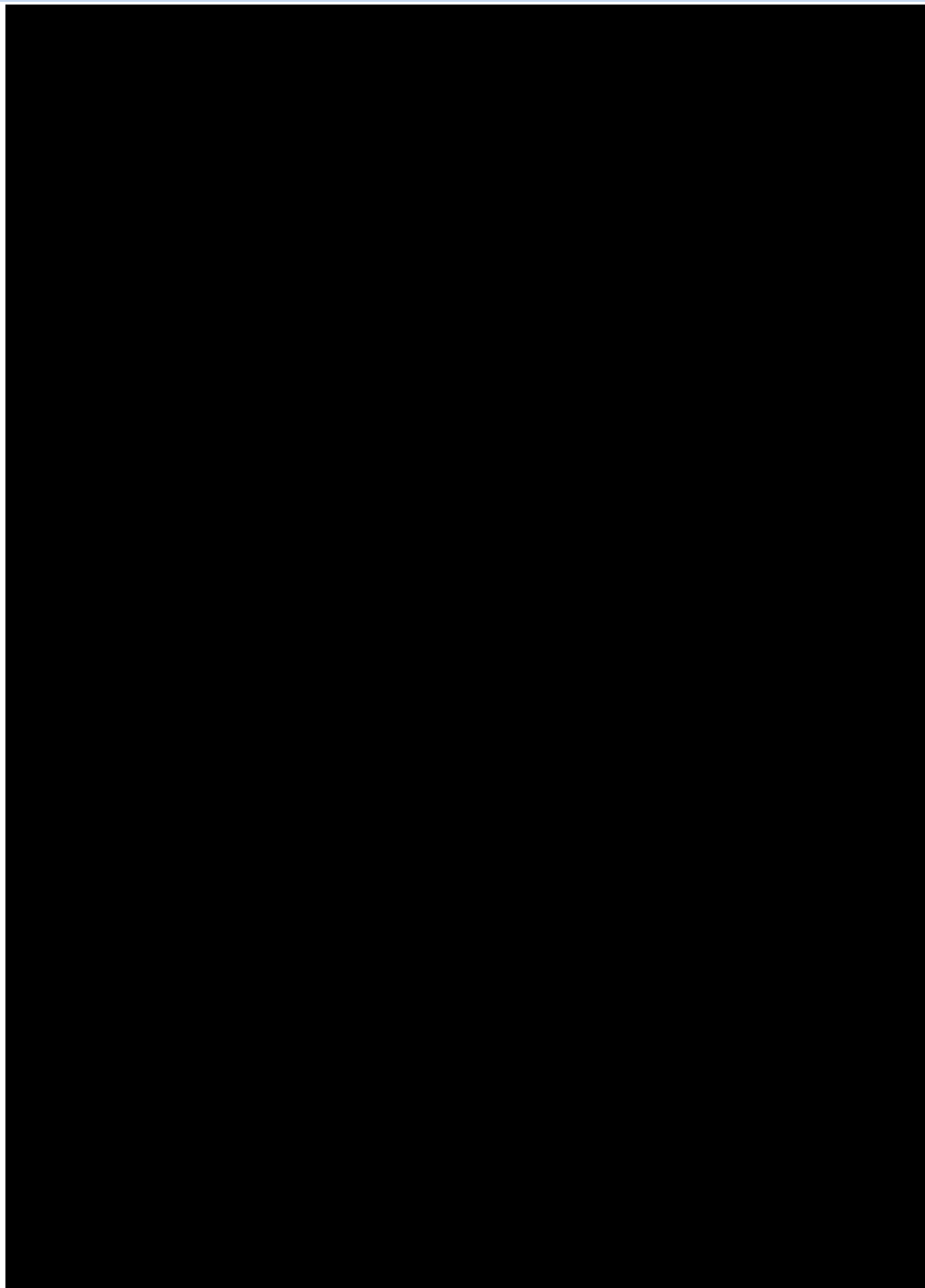
Rev.C Jul.-2018

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

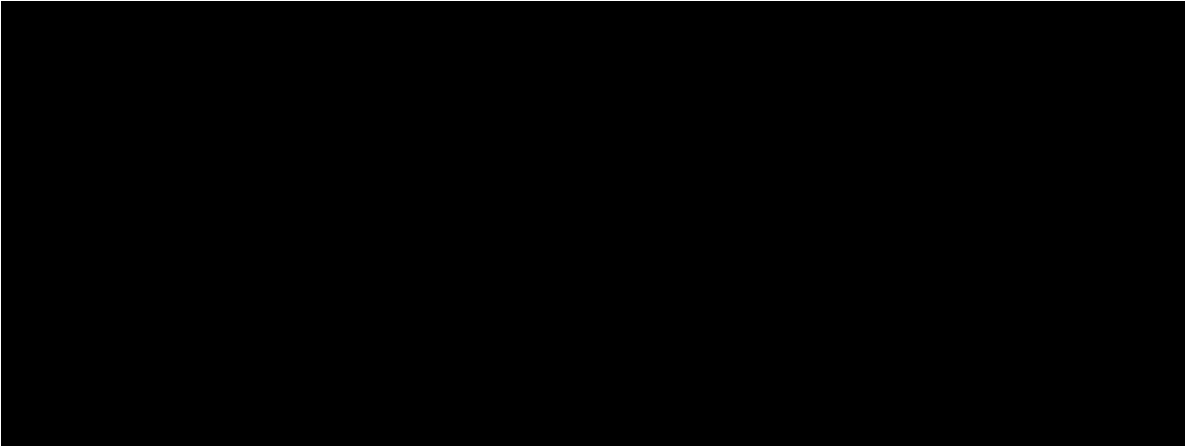
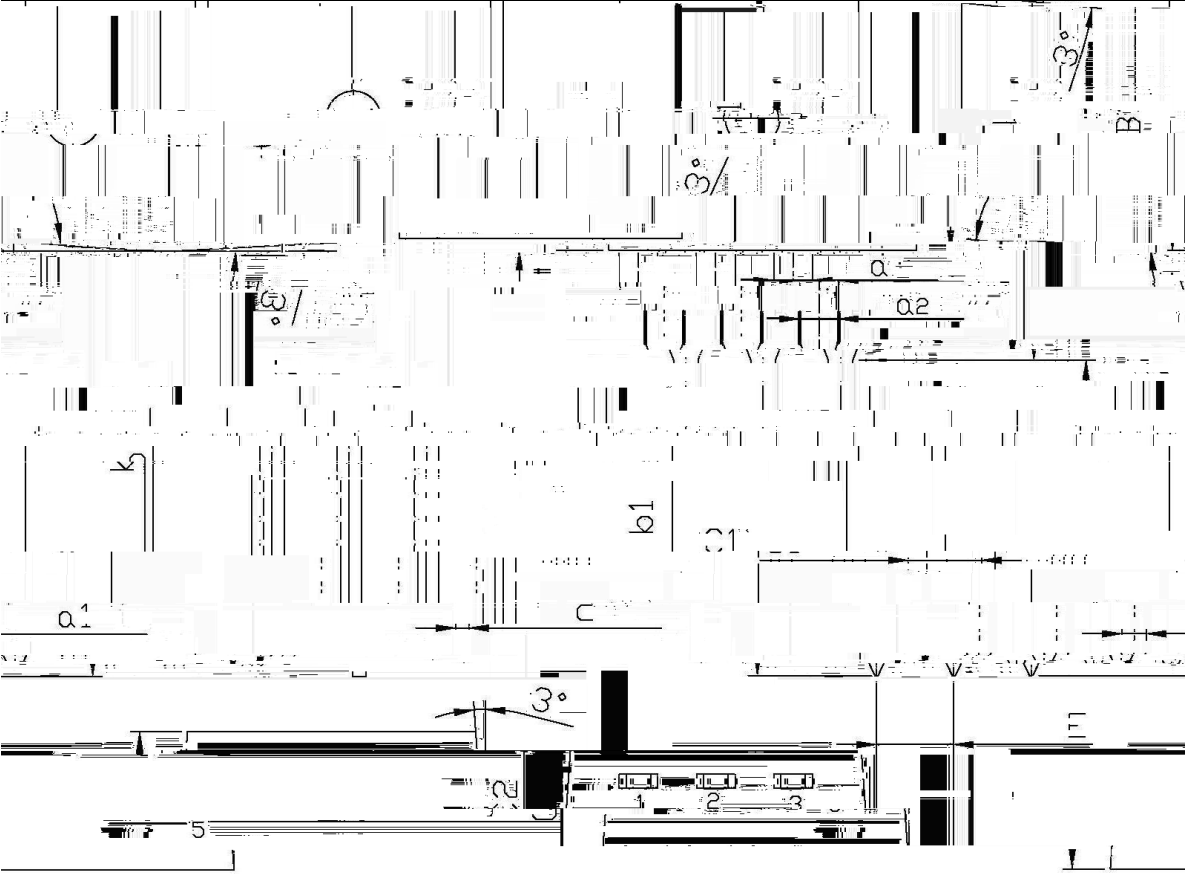
/ Source Drain diode

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}	$I_S=40A$ $V_{GS}=0V$ $di/dt=100A/us$		48		ns
Reverse Recovery charge	Q_{rr}			105		nC

/ Electrical Characteristic Curve

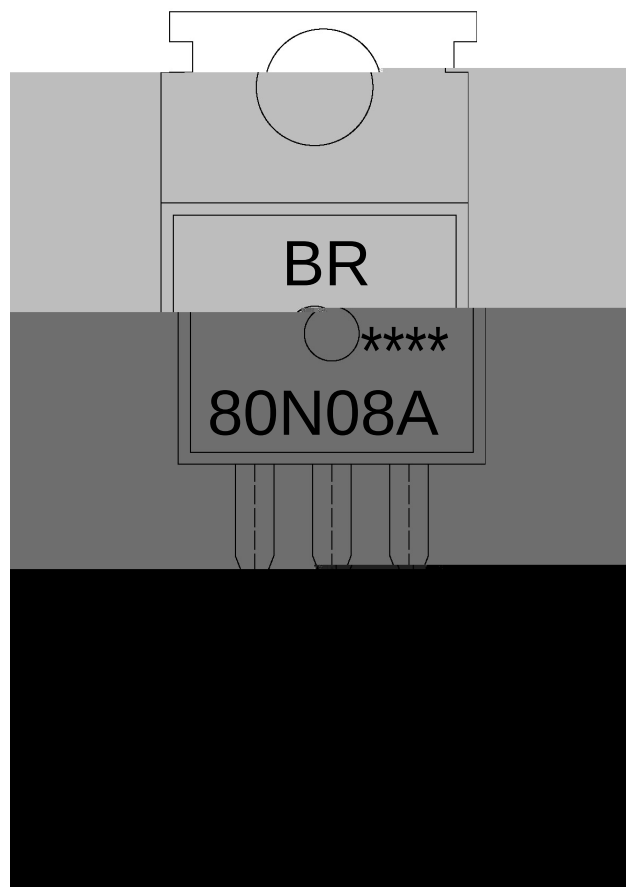


/ Package Dimensions



Dimensions in Millimeters			Dimensions in Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	9.8	10.2	C	6.2	6.4
a	3.56	3.61	Ca	6.3	6.5
b	5.7	6.1	B	9.0	9.4
b1	2.6	3.61	Ca	6.3	6.5
b2	8.6	10.6	Ca	6.3	6.5
b3	0.5	0.6	Ca	6.3	6.5
b4	0.5	0.6	Ca	6.3	6.5
b5	0.5	0.6	Ca	6.3	6.5
b6	0.5	0.6	Ca	6.3	6.5
b7	0.5	0.6	Ca	6.3	6.5
b8	0.5	0.6	Ca	6.3	6.5
b9	0.5	0.6	Ca	6.3	6.5
b10	0.5	0.6	Ca	6.3	6.5
b11	0.5	0.6	Ca	6.3	6.5
b12	0.5	0.6	Ca	6.3	6.5
b13	0.5	0.6	Ca	6.3	6.5
b14	0.5	0.6	Ca	6.3	6.5
b15	0.5	0.6	Ca	6.3	6.5
b16	0.5	0.6	Ca	6.3	6.5
b17	0.5	0.6	Ca	6.3	6.5
b18	0.5	0.6	Ca	6.3	6.5
b19	0.5	0.6	Ca	6.3	6.5
b20	0.5	0.6	Ca	6.3	6.5
b21	0.5	0.6	Ca	6.3	6.5
b22	0.5	0.6	Ca	6.3	6.5
b23	0.5	0.6	Ca	6.3	6.5
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b26	0.5	0.6	Ca	6.3	6.5
b27	0.5	0.6	Ca	6.3	6.5
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b36	0.5	0.6	Ca	6.3	6.5
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b39	0.5	0.6	Ca	6.3	6.5
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b42	0.5	0.6	Ca	6.3	6.5
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b44	0.5	0.6	Ca	6.3	6.5
b45	0.5	0.6	Ca	6.3	6.5
b46	0.5	0.6	Ca	6.3	6.5
b47	0.5	0.6	Ca	6.3	6.5
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b49	0.5	0.6	Ca	6.3	6.5
b50	0.5	0.6	Ca	6.3	6.5
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b78	0.5	0.6	Ca	6.3	6.5
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b88	0.5	0.6	Ca	6.3	6.5
b89	0.5	0.6	Ca	6.3	6.5
b90	0.5	0.6	Ca	6.3	6.5
b91	0.5	0.6	Ca	6.3	6.5
b92	0.5	0.6	Ca	6.3	6.5
b93	0.5	0.6	Ca	6.3	6.5
b94	0.5	0.6	Ca	6.3	6.5
b95	0.5	0.6	Ca	6.3	6.5
b96	0.5	0.6	Ca	6.3	6.5
b97	0.5	0.6	Ca	6.3	6.5
b98	0.5	0.6	Ca	6.3	6.5
b99	0.5	0.6	Ca	6.3	6.5
b100	0.5	0.6	Ca	6.3	6.5

/ Marking Instructions



BR

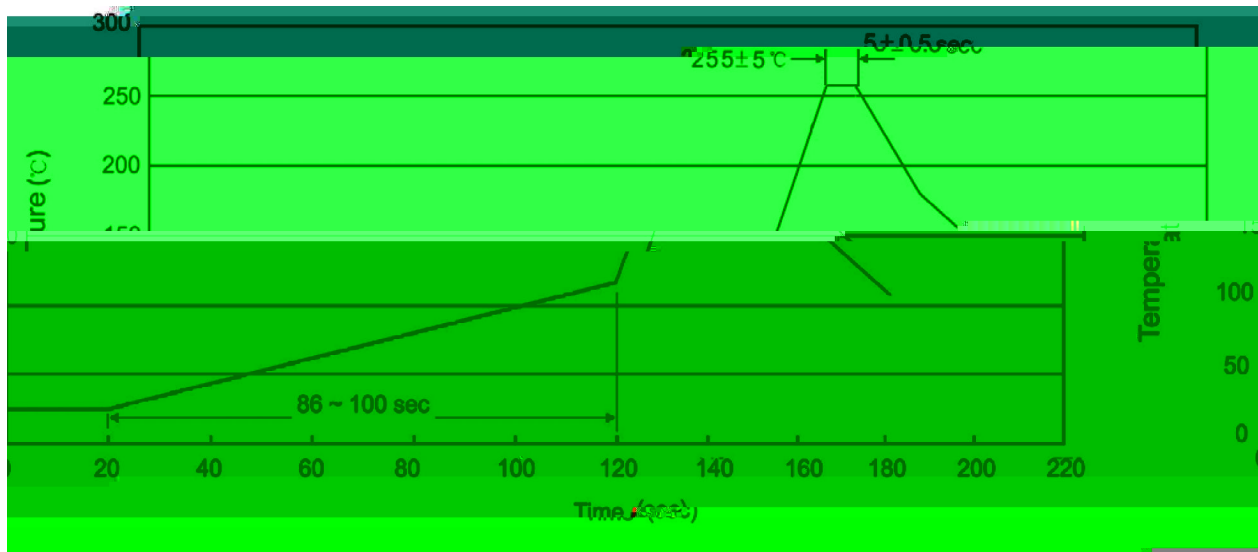
80N08A

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	Time:10±1 sec
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/ Packaging SPEC.

/ BULK

Package Type	Units					Dimension (unit mm ³)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

/ Notices