

/ Descriptions

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

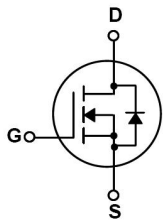
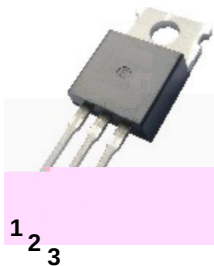
/ Features

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

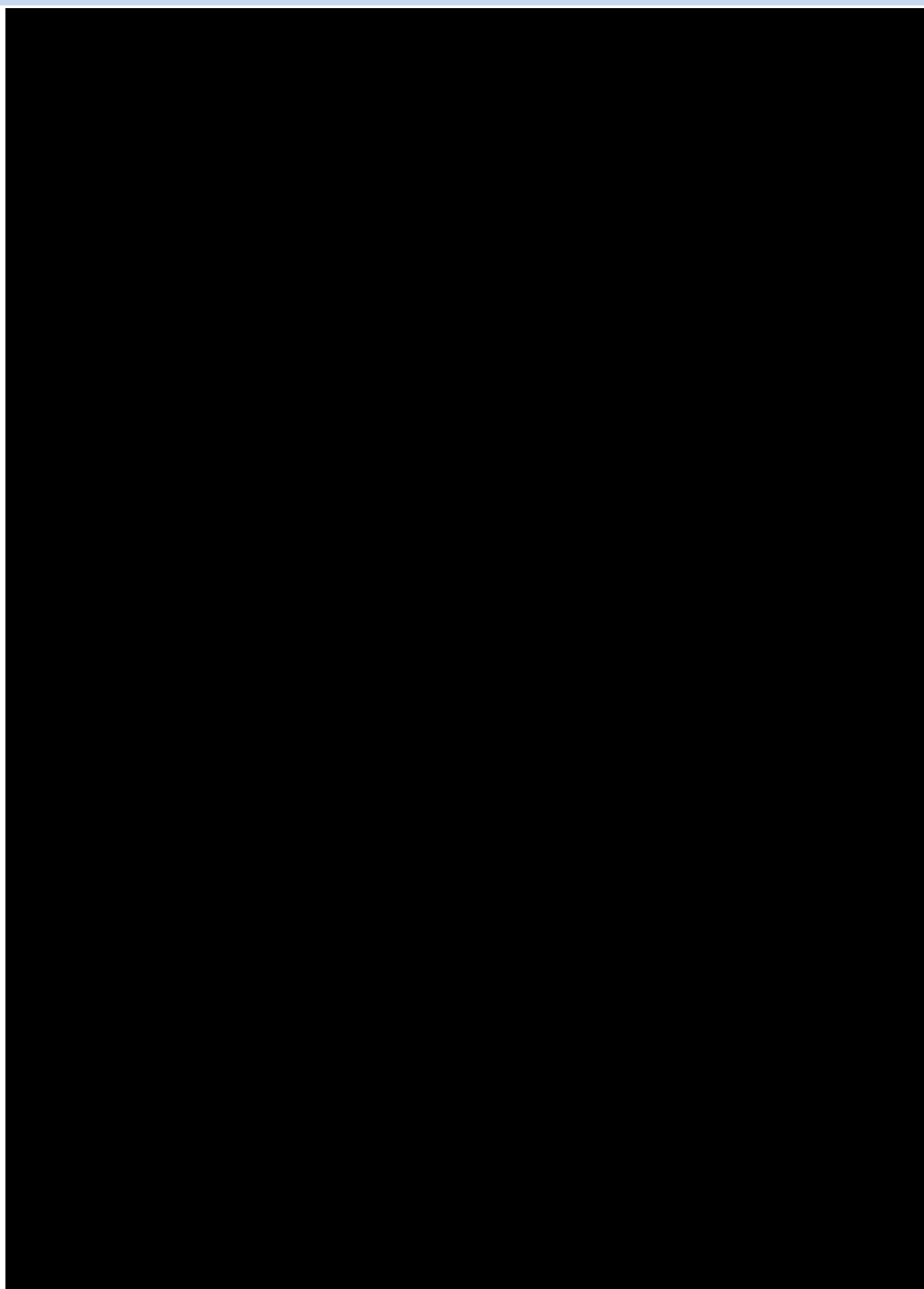
Rev.C Jul.-2018

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	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_{GS}	± 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

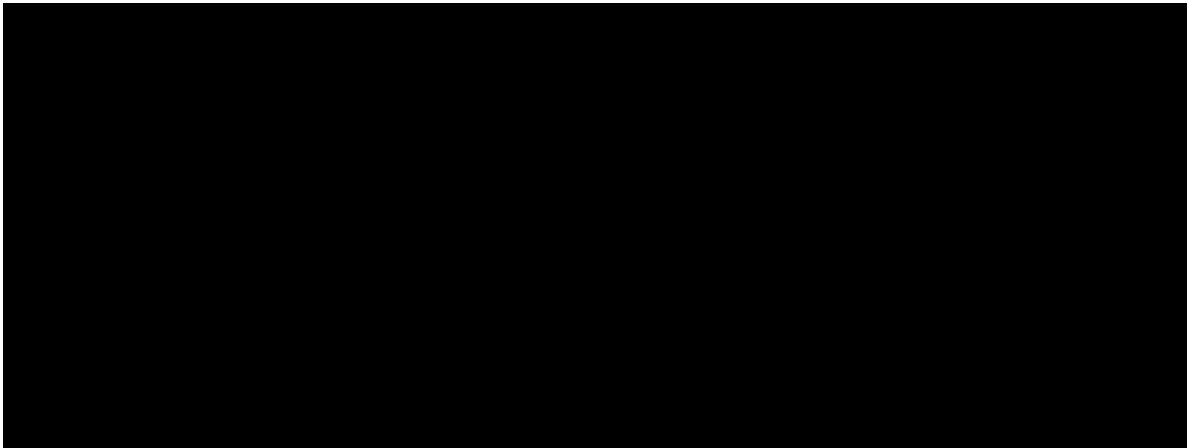
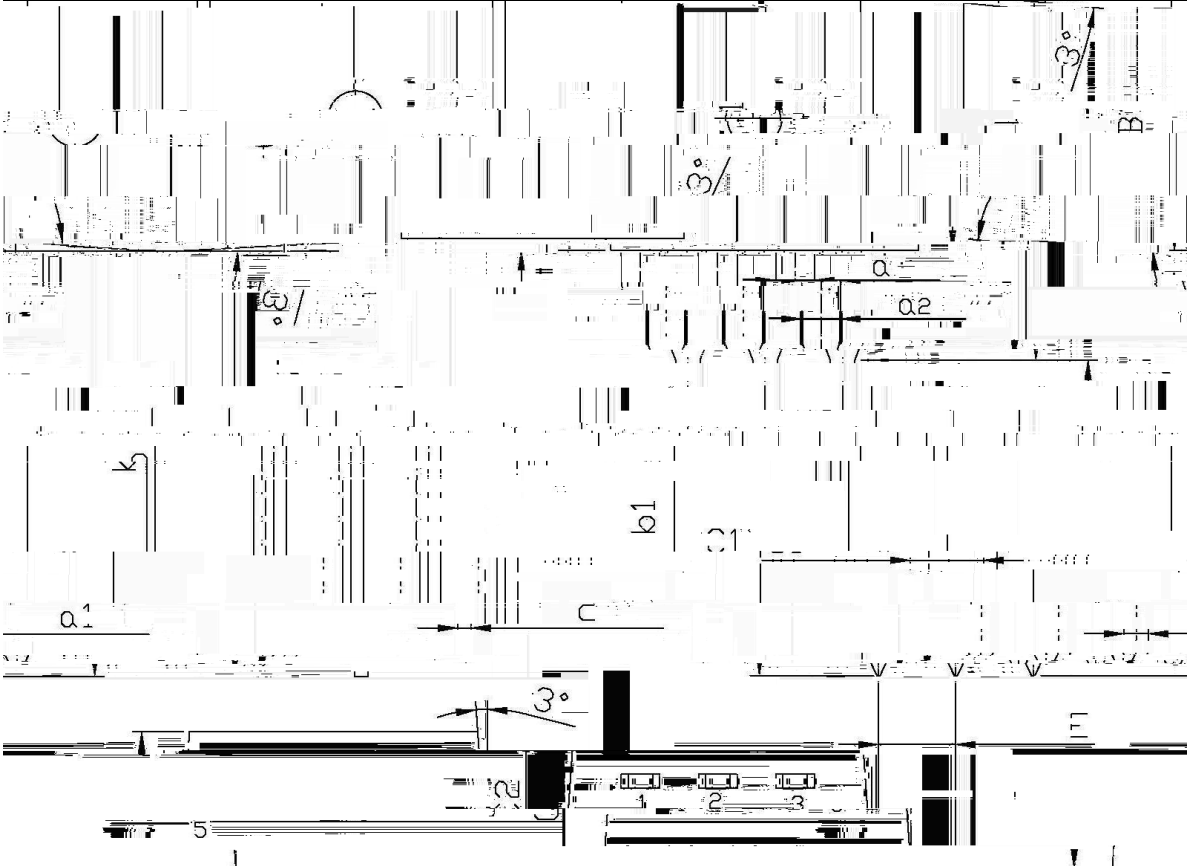
/ Source Drain diode

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

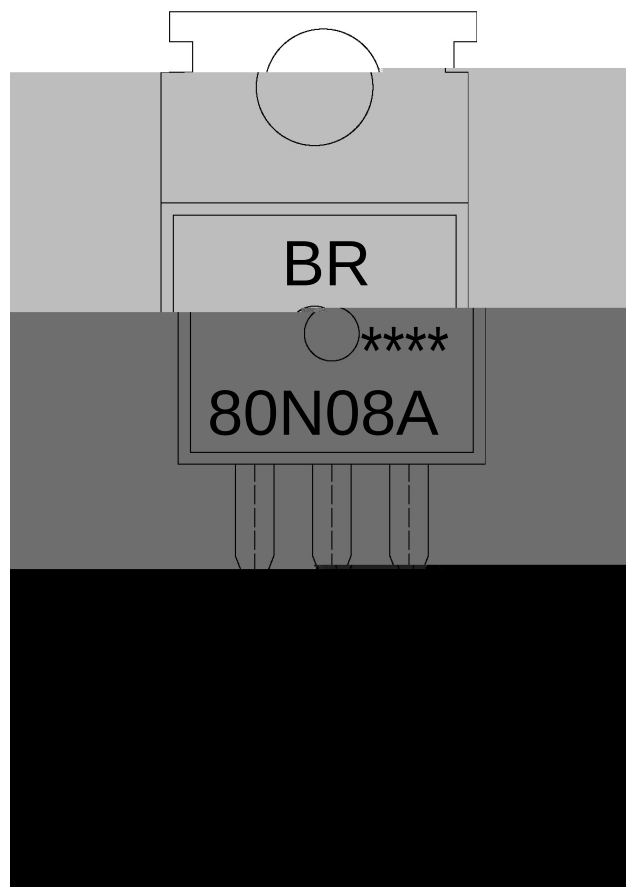


/ Package Dimensions



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	C	6.3	6.5
b	5.7	6.1	B	9.0	9.4
c	5.7	6.1	B	9.0	9.4
d	5.7	6.1	B	9.0	9.4
e	5.7	6.1	B	9.0	9.4
f	5.7	6.1	B	9.0	9.4
g	5.7	6.1	B	9.0	9.4
h	5.7	6.1	B	9.0	9.4
i	5.7	6.1	B	9.0	9.4
j	5.7	6.1	B	9.0	9.4
k	5.7	6.1	B	9.0	9.4
l	5.7	6.1	B	9.0	9.4
m	5.7	6.1	B	9.0	9.4
n	5.7	6.1	B	9.0	9.4
o	5.7	6.1	B	9.0	9.4
p	5.7	6.1	B	9.0	9.4
q	5.7	6.1	B	9.0	9.4
r	5.7	6.1	B	9.0	9.4
s	5.7	6.1	B	9.0	9.4
t	5.7	6.1	B	9.0	9.4
u	5.7	6.1	B	9.0	9.4
v	5.7	6.1	B	9.0	9.4
w	5.7	6.1	B	9.0	9.4
x	5.7	6.1	B	9.0	9.4
y	5.7	6.1	B	9.0	9.4
z	5.7	6.1	B	9.0	9.4
aa	5.7	6.1	B	9.0	9.4
ab	5.7	6.1	B	9.0	9.4
ac	5.7	6.1	B	9.0	9.4
ad	5.7	6.1	B	9.0	9.4
ae	5.7	6.1	B	9.0	9.4
af	5.7	6.1	B	9.0	9.4
ag	5.7	6.1	B	9.0	9.4
ah	5.7	6.1	B	9.0	9.4
ai	5.7	6.1	B	9.0	9.4
aj	5.7	6.1	B	9.0	9.4
ak	5.7	6.1	B	9.0	9.4
al	5.7	6.1	B	9.0	9.4
am	5.7	6.1	B	9.0	9.4
an	5.7	6.1	B	9.0	9.4
ao	5.7	6.1	B	9.0	9.4
ap	5.7	6.1	B	9.0	9.4
aq	5.7	6.1	B	9.0	9.4
ar	5.7	6.1	B	9.0	9.4
as	5.7	6.1	B	9.0	9.4
at	5.7	6.1	B	9.0	9.4
au	5.7	6.1	B	9.0	9.4
av	5.7	6.1	B	9.0	9.4
aw	5.7	6.1	B	9.0	9.4
ax	5.7	6.1	B	9.0	9.4
ay	5.7	6.1	B	9.0	9.4
az	5.7	6.1	B	9.0	9.4
ba	5.7	6.1	B	9.0	9.4
bb	5.7	6.1	B	9.0	9.4
bc	5.7	6.1	B	9.0	9.4
bd	5.7	6.1	B	9.0	9.4
be	5.7	6.1	B	9.0	9.4
bf	5.7	6.1	B	9.0	9.4
bg	5.7	6.1	B	9.0	9.4
bh	5.7	6.1	B	9.0	9.4
bi	5.7	6.1	B	9.0	9.4
bj	5.7	6.1	B	9.0	9.4
bk	5.7	6.1	B	9.0	9.4
bl	5.7	6.1	B	9.0	9.4
bm	5.7	6.1	B	9.0	9.4
bn	5.7	6.1	B	9.0	9.4
bo	5.7	6.1	B	9.0	9.4
bp	5.7	6.1	B	9.0	9.4
bq	5.7	6.1	B	9.0	9.4
br	5.7	6.1	B	9.0	9.4
bs	5.7	6.1	B	9.0	9.4
bt	5.7	6.1	B	9.0	9.4
bu	5.7	6.1	B	9.0	9.4
bv	5.7	6.1	B	9.0	9.4
bw	5.7	6.1	B	9.0	9.4
bx	5.7	6.1	B	9.0	9.4
by	5.7	6.1	B	9.0	9.4
bz	5.7	6.1	B	9.0	9.4
ca	5.7	6.1	B	9.0	9.4
cb	5.7	6.1	B	9.0	9.4
cc	5.7	6.1	B	9.0	9.4
cd	5.7	6.1	B	9.0	9.4
ce	5.7	6.1	B	9.0	9.4
cf	5.7	6.1	B	9.0	9.4
cg	5.7	6.1	B	9.0	9.4
ch	5.7	6.1	B	9.0	9.4
ci	5.7	6.1	B	9.0	9.4
cj	5.7	6.1	B	9.0	9.4
ck	5.7	6.1	B	9.0	9.4
cl	5.7	6.1	B	9.0	9.4
cm	5.7	6.1	B	9.0	9.4
cn	5.7	6.1	B	9.0	9.4
co	5.7	6.1	B	9.0	9.4
cp	5.7	6.1	B	9.0	9.4
cq	5.7	6.1	B	9.0	9.4
cr	5.7	6.1	B	9.0	9.4
cs	5.7	6.1	B	9.0	9.4
ct	5.7	6.1	B	9.0	9.4
cu	5.7	6.1	B	9.0	9.4
cv	5.7	6.1	B	9.0	9.4
cw	5.7	6.1	B	9.0	9.4
cx	5.7	6.1	B	9.0	9.4
cy	5.7	6.1	B	9.0	9.4
cz	5.7	6.1	B	9.0	9.4
da	5.7	6.1	B	9.0	9.4
db	5.7	6.1	B	9.0	9.4
dc	5.7	6.1	B	9.0	9.4
dd	5.7	6.1	B	9.0	9.4
de	5.7	6.1	B	9.0	9.4
df	5.7	6.1	B	9.0	9.4
dg	5.7	6.1	B	9.0	9.4
dh	5.7	6.1	B	9.0	9.4
di	5.7	6.1	B	9.0	9.4
dj	5.7	6.1	B	9.0	9.4
dk	5.7	6.1	B	9.0	9.4
dl	5.7	6.1	B	9.0	9.4
dm	5.7	6.1	B	9.0	9.4
dn	5.7	6.1	B	9.0	9.4
do	5.7	6.1	B	9.0	9.4
dp	5.7	6.1	B	9.0	9.4
dq	5.7	6.1	B	9.0	9.4
dr	5.7	6.1	B	9.0	9.4
ds	5.7	6.1	B	9.0	9.4
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dv	5.7	6.1	B	9.0	9.4
dw	5.7	6.1	B	9.0	9.4
dx	5.7	6.1	B	9.0	9.4
dy	5.7	6.1	B	9.0	9.4
dz	5.7	6.1	B	9.0	9.4
ea	5.7	6.1	B	9.0	9.4
eb	5.7	6.1	B	9.0	9.4
ec	5.7	6.1	B	9.0	9.4
ed	5.7	6.1	B	9.0	9.4
ee	5.7	6.1	B	9.0	9.4
ef	5.7	6.1	B	9.0	9.4
eg	5.7	6.1	B	9.0	9.4
eh	5.7	6.1	B	9.0	9.4
ei	5.7	6.1	B	9.0	9.4
ej	5.7	6.1	B	9.0	9.4
ek	5.7	6.1	B	9.0	9.4
el	5.7	6.1	B	9.0	9.4
em	5.7	6.1	B	9.0	9.4
en	5.7	6.1	B	9.0	9.4
eo	5.7	6.1	B	9.0	9.4
ep	5.7	6.1	B	9.0	9.4
eq	5.7	6.1	B	9.0	9.4
er	5.7	6.1	B	9.0	9.4
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ev	5.7	6.1	B	9.0	9.4
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fb	5.7	6.1	B	9.0	9.4
fc	5.7	6.1	B	9.0	9.4
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fe	5.7	6.1	B	9.0	9.4
ff	5.7	6.1	B	9.0	9.4
fg	5.7	6.1	B	9.0	9.4
fh	5.7	6.1	B	9.0	9.4
fi	5.7	6.1	B	9.0	9.4
fj	5.7	6.1	B	9.0	9.4
fk	5.7	6.1	B	9.0	9.4
fl	5.7	6.1	B	9.0	9.4
fm	5.7	6.1	B	9.0	9.4
fn	5.7	6.1	B	9.0	9.4
fo	5.7	6.1	B	9.0	9.4
fp	5.7	6.1	B	9.0	9.4
fq	5.7	6.1	B	9.0	9.4
fr	5.7	6.1	B	9.0	9.4
fs	5.7	6.1	B	9.0	9.4
ft	5.7	6.1	B	9.0	9.4
fu	5.7	6.1	B	9.0	9.4
fv	5.7	6.1	B	9.0	9.4
fw	5.7	6.1	B	9.0	9.4
fx	5.7	6.1	B	9.0	9.4
fy	5.7	6.1	B	9.0	9.4
fz	5.7	6.1	B	9.0	9.4
ga	5.7	6.1	B	9.0	9.4
gb	5.7	6.1	B	9.0	9.4
gc	5.7	6.1	B	9.0	9.4
gd	5.7	6.1	B	9.0	9.4
ge	5.7	6.1	B	9.0	9.4
gf	5.7	6.1	B	9.0	9.4
gg	5.7	6.1	B	9.0	9.4
gh	5.7	6.1	B	9.0	9.4
gi	5.7	6.1	B	9.0	9.4
gj	5.7	6.1	B	9.0	9.4
gk	5.7	6.1	B	9.0	9.4
gl	5.7	6.1	B	9.0	9.4
gm	5.7	6.1	B	9.0	9.4
gn	5.7	6.1	B	9.0	9.4
go	5.7	6.1	B	9.0	9.4
gp	5.7	6.1	B	9.0	9.4
gq	5.7	6.1	B	9.0	9.4
gr	5.7	6.1	B	9.0	9.4
gs	5.7	6.1	B	9.0	9.4
gt	5.7	6.1	B	9.0	9.4
gu	5.7	6.1	B	9.0	9.4
gv	5.7	6.1	B	9.0	9.4
gw	5.7	6.1	B	9.0	9.4
gx	5.7	6.1	B	9.0	9.4
gy	5.7	6.1	B	9.0	9.4
gz	5.7	6.1	B	9.0	9.4
ha	5.7	6.1	B	9.0	9.4
hb	5.7	6.1	B	9.0	9.4
hc	5.7	6.1	B	9.0	9.4
hd	5.7	6.1	B	9.0	9.4
he	5.7	6.1	B	9.0	9.4
hf	5.7	6.1	B	9.0	9.4
hg	5.7	6.1	B	9.0	9.4
hh	5.7	6.1	B	9.0	9.4
hi	5.7	6.1	B	9.0	9.4
hj	5.7	6.1	B	9.0	9.4
hk	5.7	6.1	B	9.0	9.4
hl	5.7	6.1	B	9.0	9.4
hm	5.7	6.1	B	9.0	9.4
hn	5.7	6.1	B	9.0	9.4
ho	5.7	6.1	B	9.0	9.4
hp	5.7	6.1	B	9.0	9.4
hq	5.7	6.1	B	9.0	9.4
hr	5.7	6.1	B	9.0	9.4
hs	5.7	6.1	B	9.0	9.4
ht	5.7	6.1	B	9.0	9.4
hu	5.7	6.1	B	9.0	9.4
hv	5.7	6.1	B	9.0	9.4
hw	5.7	6.1	B	9.0	9.4
hx	5.7	6.1	B	9.0	9.4
hy	5.7	6.1	B	9.0	9.4
hz	5.7	6.1	B	9.0	9.4
ia	5.7	6.1	B	9.0	9.4
ib	5.7	6.1	B	9.0	9.4
ic	5.7	6.1	B	9.0	9.4
id	5.7	6.1	B	9.0	9.4
ie	5.7	6.1	B	9.0	9.4
if	5.7	6.1	B	9.0	9.4
ig	5.7	6.1	B	9.0	9.4
ih	5.7	6.1	B	9.0	9.4
ii	5.7	6.1	B	9.0	9.4
ij	5.7	6.1	B	9.0	9.4
ik	5.7	6.1	B	9.0	9.4
il	5.7	6.1	B	9.0	9.4
im	5.7	6.1	B	9.0	9.4
in	5.7	6.1	B	9.0	9.4
io	5.7	6.1	B	9.0	9.4
ip	5.7	6.1	B	9.0	9.4
iq	5.7	6.1	B	9.0	9.4
ir	5.7	6.1	B	9.0	9.4
is	5.7	6.1	B	9.0	9.4
it	5.7	6.1	B	9.0	9.4
iu	5.7	6.1	B	9.0	

/ Marking Instructions



BR

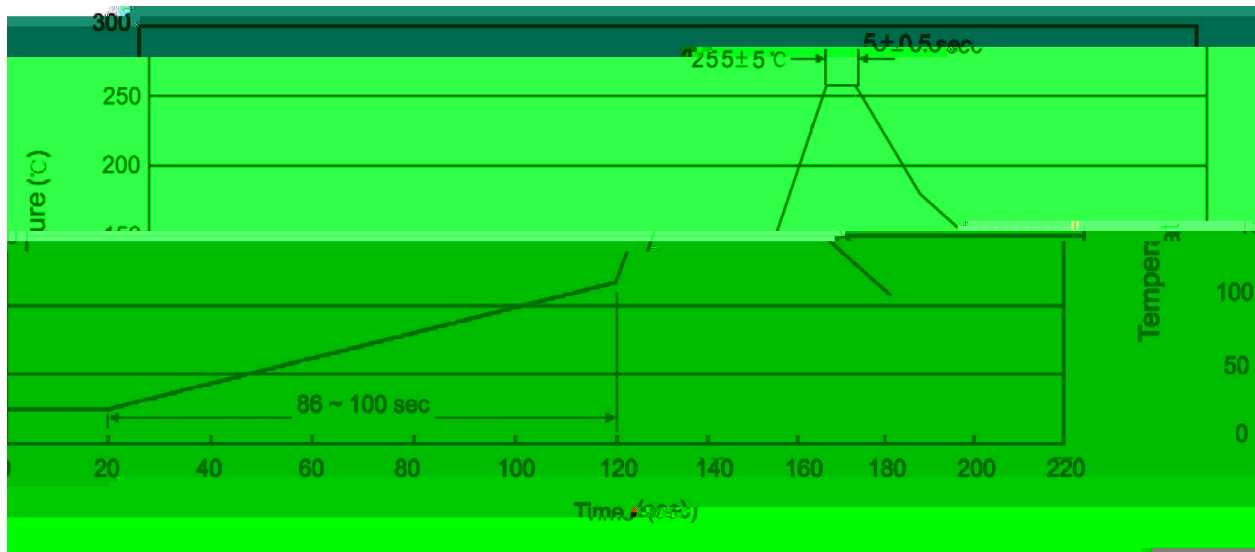
80N08A

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