

BRC630FA

Rev.A Sep.-2023

/ Descriptions

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

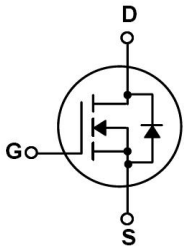
/ Features

$V_{DS}=200V$ $I_D=9A$
 $R_{DS(on)}@10Vm0.4$ (Type.0.35)
HF Product.

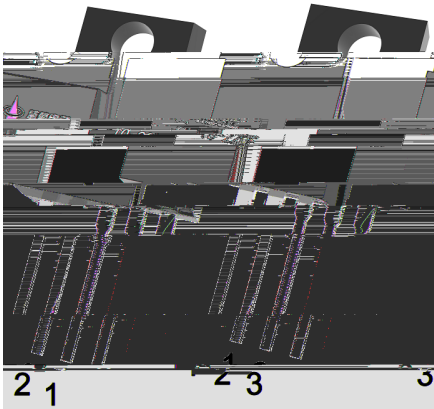
/ Applications

LED
Networking,Load Switch,LED applications.

/ Equivalent Circuit



/ Pinning



PIN1 G PIN 2 D PIN 3 S

/ Marking

See Marking Instructions.

BRCS630FA

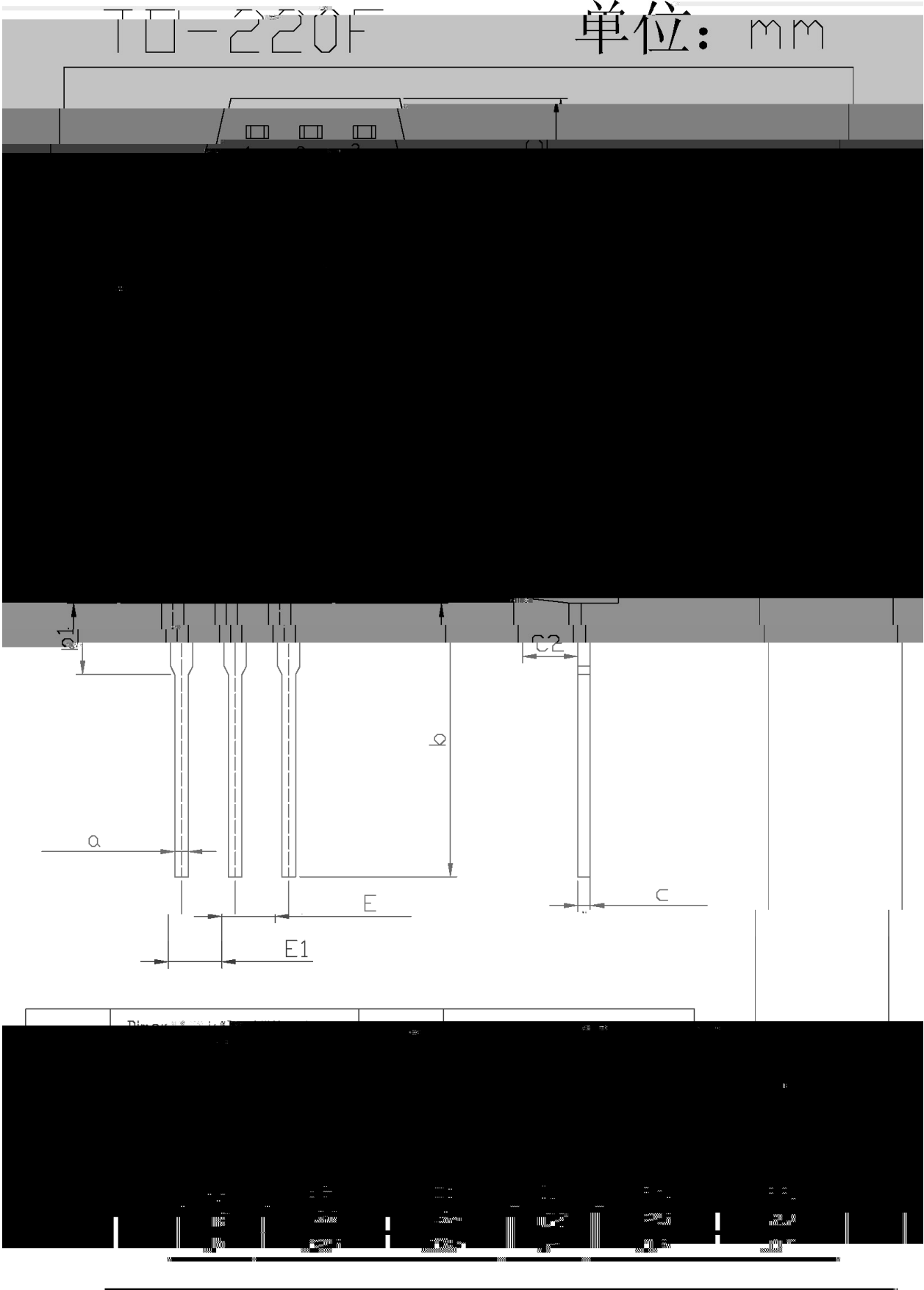
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DATA SHEET

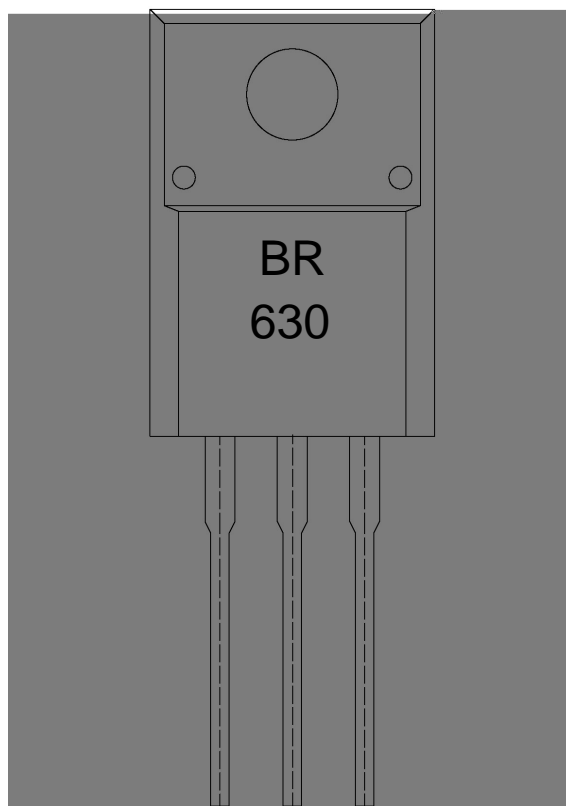
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=90V$ $R_L=9.6$ $R_{GEN}=9.1$		15	32	ns
Turn-On Rise Time	t_r			33	53	
Turn-Off Delay Time	$t_{d(off)}$			40	55	
Turn-Off Fall Time	t_f			30	45	
Maximum Continuous Drain-Source Diode Forward Current	I_S				9	A
Maximum Pulsed Drain-Source Diode Forward Current	I_{SM}				36	A
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS} = 0 V,$ $I_S = 9.0A$			1.2	V
Reverse Recovery Time	t_{rr}	$V_{GS} = 0V,$ $I_S = 9.0A,$ $dI_F/dt = 100 A/ s$		455		nS
Reverse Recovery Charge	Q_{rr}				3.5	

/ Package Dimensions



/ Marking Instructions



BR

630

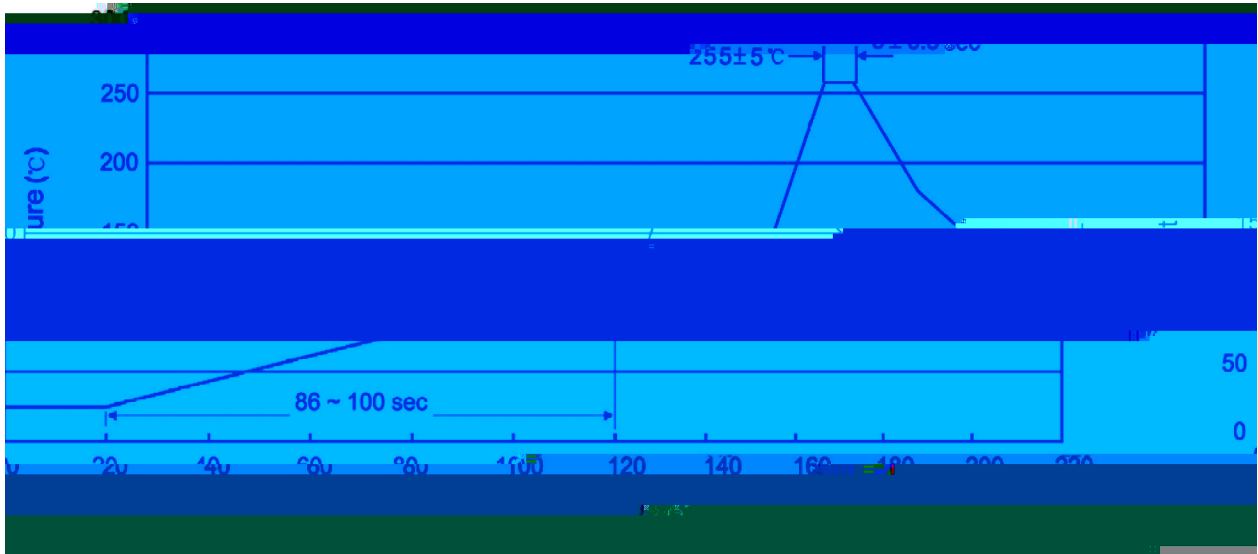
Note:

BR: Company Code

630: 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±0.5 | sec; | 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

/ **Packaging SPEC.**

/ BULK

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

/ **Notices**