

IRF630

Rev.G Jul.-2018

/ Descriptions

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

/ Features

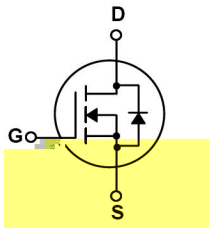
Low gate charge, low crss, fast switching.

/ Applications

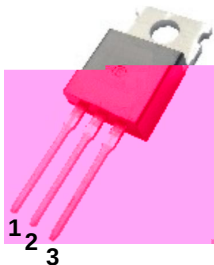
GF2GF

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

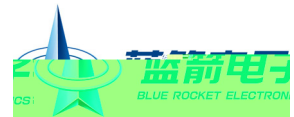
PIN 3 S

/ h_{FE} Classifications & Marking

See Marking Instructions.

IRF630

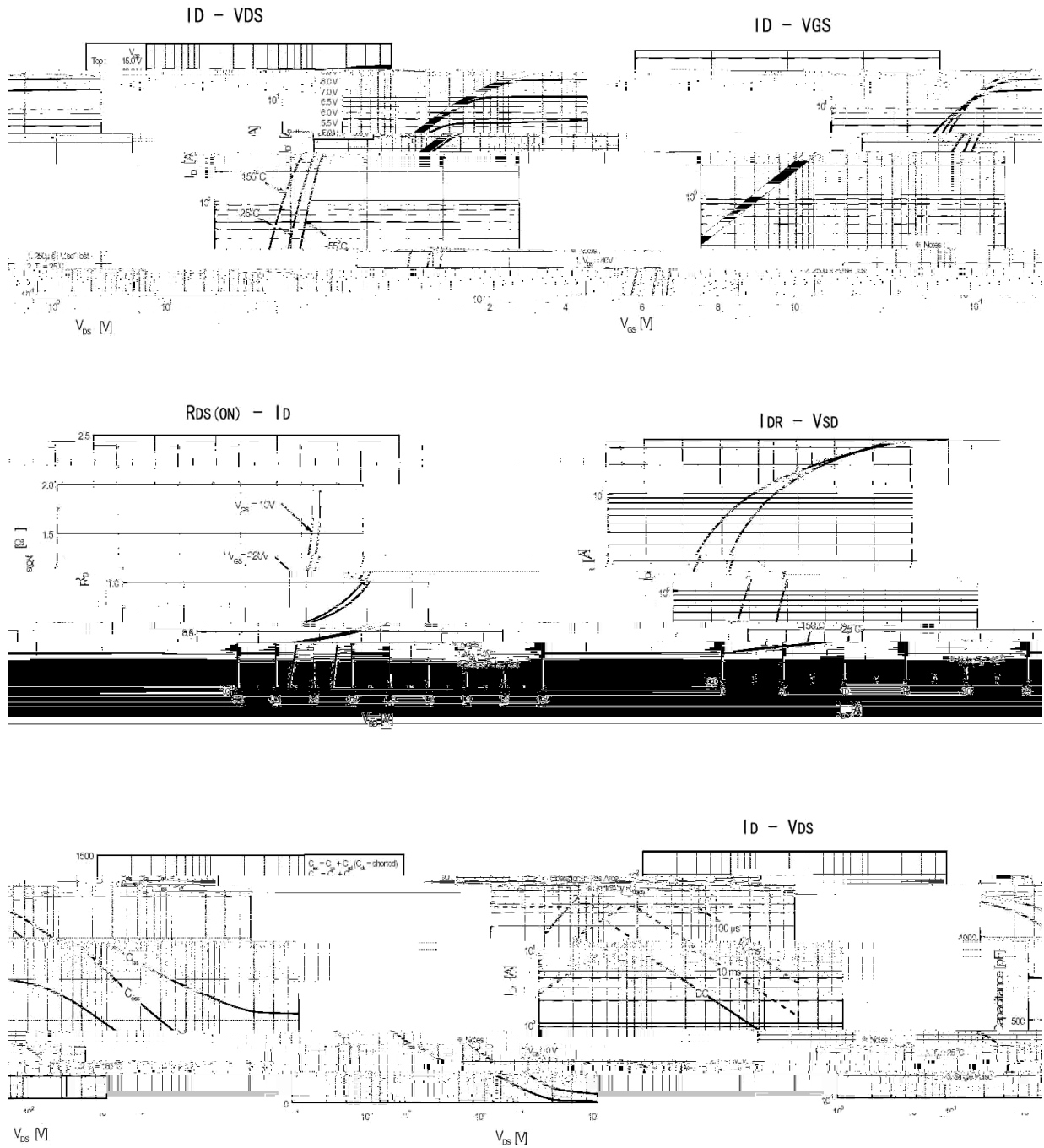
Rev.G Jul.-2018



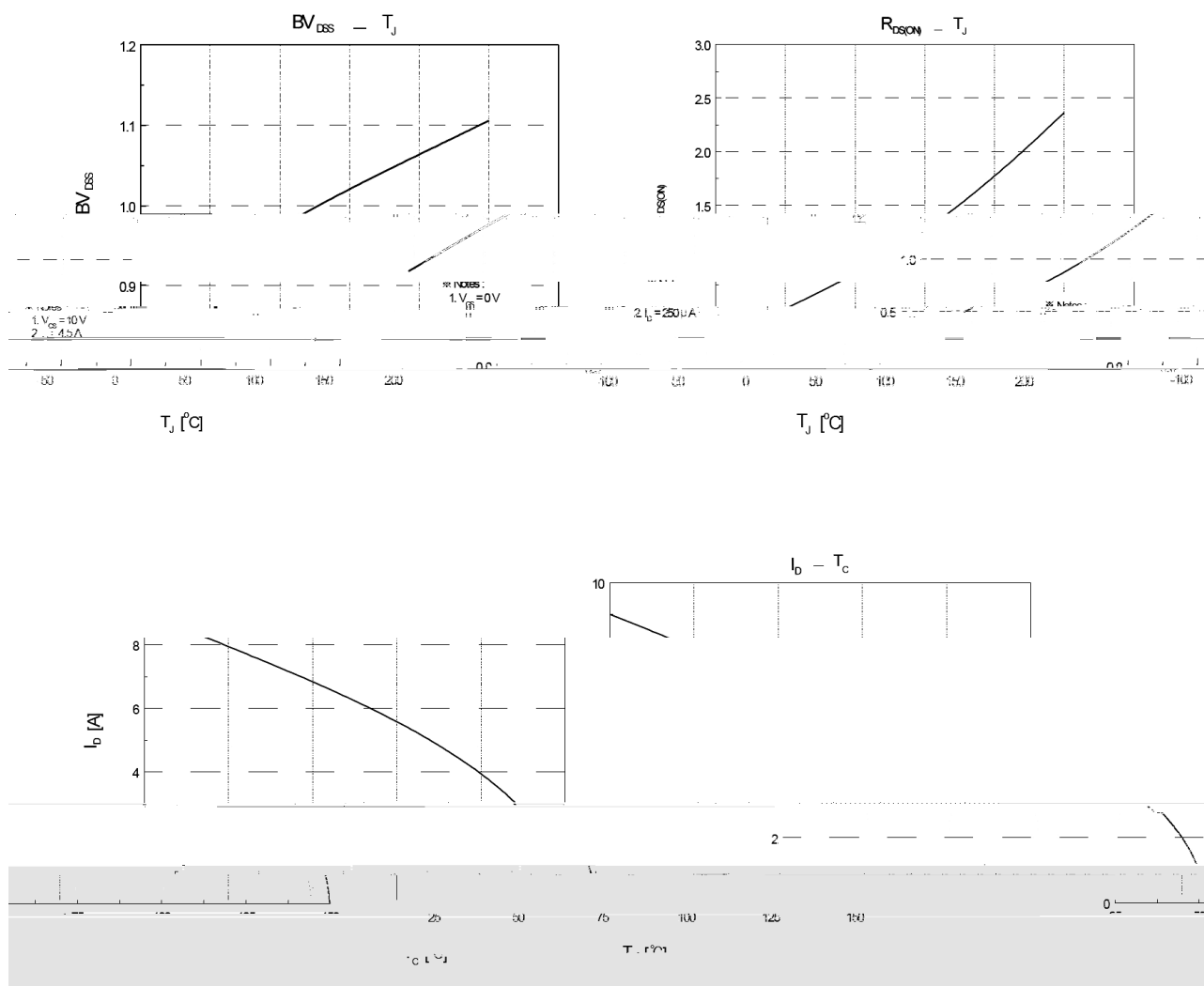
DATA SHEET

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	200	V
Drain Current	$I_D(T_C=25^{\circ}C)$	9.0	A
	$I_D(T_C=100^{\circ}C)$	5.7	A
Pulsed Drain Current	I_{DM}	36	A
Gate-Source Voltage	V_{GSS}	± 30	V
Avalanche Current	I_{AR}	9.0	A
Single Pulsed Avalanche Energy	E_{AS}	162	mJ
Repetitive Avalanche Energy	E_{AR}	7.8	mJ
Total Power Dissipation	$P_D(T_C=25^{\circ}C)$	72	W
Junction and Storage Temperature Range	T_J, T_{STG}		

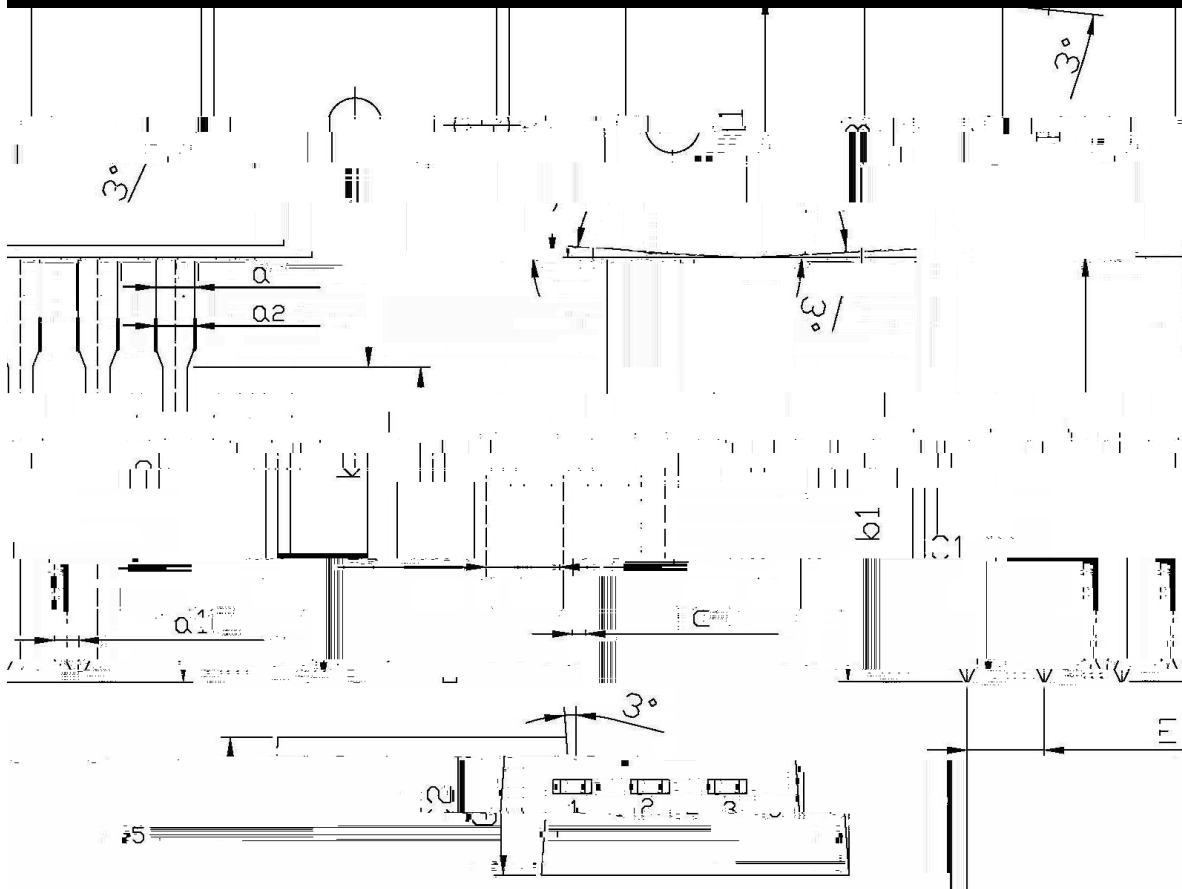
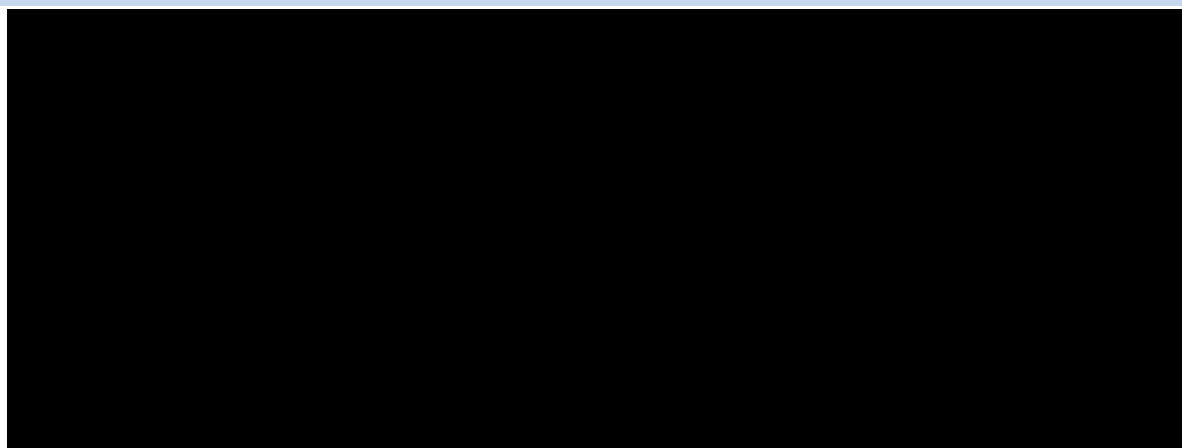
/ Electrical Characteristic Curve



Electrical Characteristic Curve

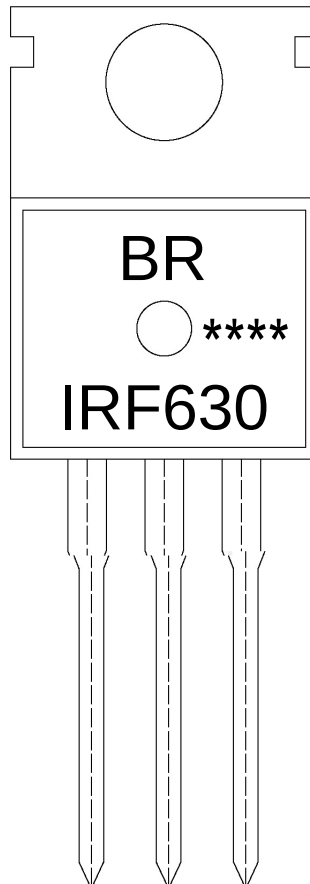


/ Package Dimensions



Dimensions in Millimeters			Dimensions in Millimeters		
Symbol	Min	Max	Symbol	Min	Max
Δ	9.8	10.2	C	1.2	1.4
α	0.5	0.6	B	0.3	0.7
α_1	9.4	15.7	B1	0.3	0.7
α_2	2.6	12.6	G1	0.3	0.7
α_3	3.9	9.6	α_1	0.7	0.7
α_4	0.4	0.6	α_2	0.3	0.7
α_5	0.4	0.6	α_3	0.3	0.7
α_6	0.4	0.6	α_4	0.3	0.7
α_7	0.4	0.6	α_5	0.3	0.7
α_8	0.4	0.6	α_6	0.3	0.7
α_9	0.4	0.6	α_7	0.3	0.7
α_{10}	0.4	0.6	α_8	0.3	0.7
α_{11}	0.4	0.6	α_9	0.3	0.7
α_{12}	0.4	0.6	α_{10}	0.3	0.7
α_{13}	0.4	0.6	α_{11}	0.3	0.7
α_{14}	0.4	0.6	α_{12}	0.3	0.7
α_{15}	0.4	0.6	α_{13}	0.3	0.7
α_{16}	0.4	0.6	α_{14}	0.3	0.7
α_{17}	0.4	0.6	α_{15}	0.3	0.7
α_{18}	0.4	0.6	α_{16}	0.3	0.7
α_{19}	0.4	0.6	α_{17}	0.3	0.7
α_{20}	0.4	0.6	α_{18}	0.3	0.7
α_{21}	0.4	0.6	α_{19}	0.3	0.7
α_{22}	0.4	0.6	α_{20}	0.3	0.7
α_{23}	0.4	0.6	α_{21}	0.3	0.7
α_{24}	0.4	0.6	α_{22}	0.3	0.7
α_{25}	0.4	0.6	α_{23}	0.3	0.7
α_{26}	0.4	0.6	α_{24}	0.3	0.7
α_{27}	0.4	0.6	α_{25}	0.3	0.7
α_{28}	0.4	0.6	α_{26}	0.3	0.7
α_{29}	0.4	0.6	α_{27}	0.3	0.7
α_{30}	0.4	0.6	α_{28}	0.3	0.7
α_{31}	0.4	0.6	α_{29}	0.3	0.7
α_{32}	0.4	0.6	α_{30}	0.3	0.7
α_{33}	0.4	0.6	α_{31}	0.3	0.7
α_{34}	0.4	0.6	α_{32}	0.3	0.7
α_{35}	0.4	0.6	α_{33}	0.3	0.7
α_{36}	0.4	0.6	α_{34}	0.3	0.7
α_{37}	0.4	0.6	α_{35}	0.3	0.7
α_{38}	0.4	0.6	α_{36}	0.3	0.7
α_{39}	0.4	0.6	α_{37}	0.3	0.7
α_{40}	0.4	0.6	α_{38}	0.3	0.7
α_{41}	0.4	0.6	α_{39}	0.3	0.7
α_{42}	0.4	0.6	α_{40}	0.3	0.7
α_{43}	0.4	0.6	α_{41}	0.3	0.7
α_{44}	0.4	0.6	α_{42}	0.3	0.7
α_{45}	0.4	0.6	α_{43}	0.3	0.7
α_{46}	0.4	0.6	α_{44}	0.3	0.7
α_{47}	0.4	0.6	α_{45}	0.3	0.7
α_{48}	0.4	0.6	α_{46}	0.3	0.7
α_{49}	0.4	0.6	α_{47}	0.3	0.7
α_{50}	0.4	0.6	α_{48}	0.3	0.7
α_{51}	0.4	0.6	α_{49}	0.3	0.7
α_{52}	0.4	0.6	α_{50}	0.3	0.7
α_{53}	0.4	0.6	α_{51}	0.3	0.7
α_{54}	0.4	0.6	α_{52}	0.3	0.7
α_{55}	0.4	0.6	α_{53}	0.3	0.7
α_{56}	0.4	0.6	α_{54}	0.3	0.7
α_{57}	0.4	0.6	α_{55}	0.3	0.7
α_{58}	0.4	0.6	α_{56}	0.3	0.7
α_{59}	0.4	0.6	α_{57}	0.3	0.7
α_{60}	0.4	0.6	α_{58}	0.3	0.7
α_{61}	0.4	0.6	α_{59}	0.3	0.7
α_{62}	0.4	0.6	α_{60}	0.3	0.7
α_{63}	0.4	0.6	α_{61}	0.3	0.7
α_{64}	0.4	0.6	α_{62}	0.3	0.7
α_{65}	0.4	0.6	α_{63}	0.3	0.7
α_{66}	0.4	0.6	α_{64}	0.3	0.7
α_{67}	0.4	0.6	α_{65}	0.3	0.7
α_{68}	0.4	0.6	α_{66}	0.3	0.7
α_{69}	0.4	0.6	α_{67}	0.3	0.7
α_{70}	0.4	0.6	α_{68}	0.3	0.7
α_{71}	0.4	0.6	α_{69}	0.3	0.7
α_{72}	0.4	0.6	α_{70}	0.3	0.7
α_{73}	0.4	0.6	α_{71}	0.3	0.7
α_{74}	0.4	0.6	α_{72}	0.3	0.7
α_{75}	0.4	0.6	α_{73}	0.3	0.7
α_{76}	0.4	0.6	α_{74}	0.3	0.7
α_{77}	0.4	0.6	α_{75}	0.3	0.7
α_{78}	0.4	0.6	α_{76}	0.3	0.7
α_{79}	0.4	0.6	α_{77}	0.3	0.7
α_{80}	0.4	0.6	α_{78}	0.3	0.7
α_{81}	0.4	0.6	α_{79}	0.3	0.7
α_{82}	0.4	0.6	α_{80}	0.3	0.7
α_{83}	0.4	0.6	α_{81}	0.3	0.7
α_{84}	0.4	0.6	α_{82}	0.3	0.7
α_{85}	0.4	0.6	α_{83}	0.3	0.7
α_{86}	0.4	0.6	α_{84}	0.3	0.7
α_{87}	0.4	0.6	α_{85}	0.3	0.7
α_{88}	0.4	0.6	α_{86}	0.3	0.7
α_{89}	0.4	0.6	α_{87}	0.3	0.7
α_{90}	0.4	0.6	α_{88}	0.3	0.7
α_{91}	0.4	0.6	α_{89}	0.3	0.7
α_{92}	0.4	0.6	α_{90}	0.3	0.7
α_{93}	0.4	0.6	α_{91}	0.3	0.7
α_{94}	0.4	0.6	α_{92}	0.3	0.7
α_{95}	0.4	0.6	α_{93}	0.3	0.7
α_{96}	0.4	0.6	α_{94}	0.3	0.7
α_{97}	0.4	0.6	α_{95}	0.3	0.7
α_{98}	0.4	0.6	α_{96}	0.3	0.7
α_{99}	0.4	0.6	α_{97}	0.3	0.7
α_{100}	0.4	0.6	α_{98}	0.3	0.7

/ Marking Instructions



EU

LU1963

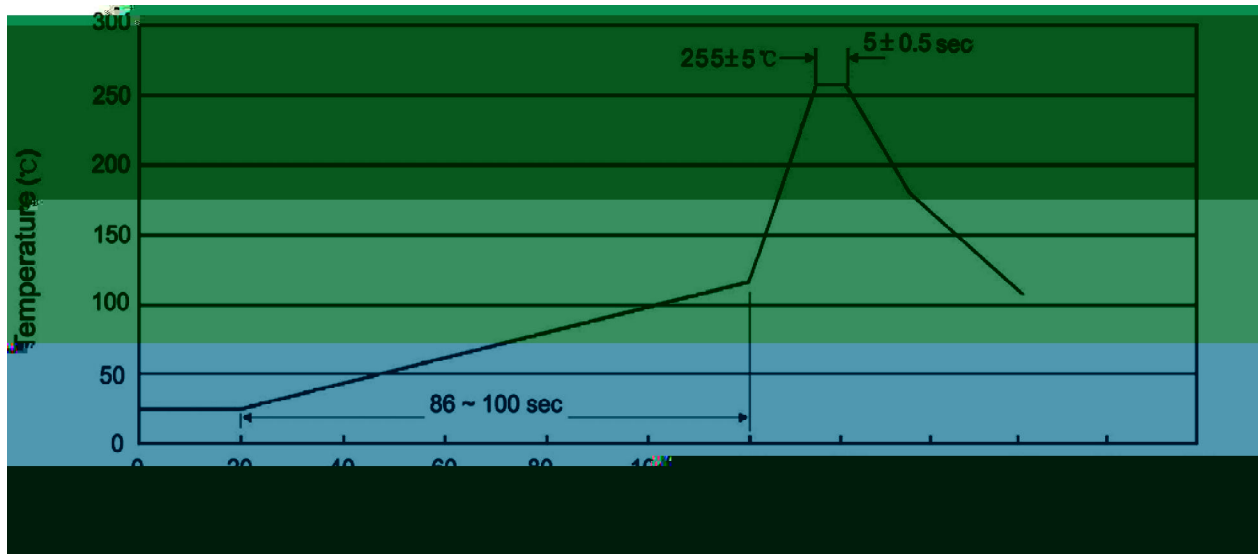
Note:

BR: Company Code

IRF630: 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

/ 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