

“Y / Descriptions

TO-220FL N

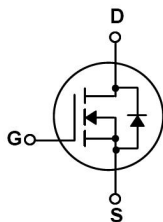
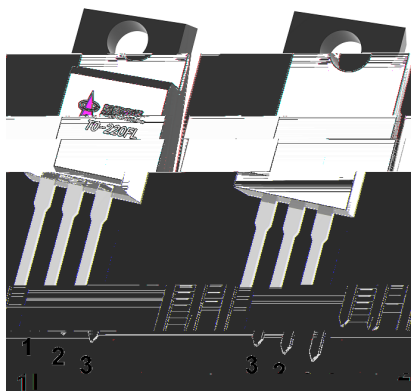
N-CHANNEL 650V Super-Junction Power MOSFET in a TO-220FL Plastic Package.

• Ę / Features $R_{DS(on)} \times Q_g$ 100%

ROHS

Very low $R_{DS(on)} \times Q_g$, 100% avalanche tested, RoHS compliant, HF Product.**v / Applications**

For switch mode power supply, uninterruptible power supply, power factor correction.

л ˆ ˆ ˆ / Equivalent Circuit**ˆ ˆ ˆ / Pinning**

PIN1 G

PIN 2 D

PIN 3 S

ˆ ˆ ˆ / Marking

See Marking Instructions.

1 3 A / Electrical Characteristics(Ta=25 ℃)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Continuous Diode Forward Current	I _S			20		A
Total Gate Charge	Q _g	V _{DS} =480V I _D =10A V _{GS} =10V		38.2		nC
Gate-Source Charge	Q _{gs}			10		nC
Gate-Drain Charge	Q _{gd}			13		nC
Reverse recovery time	t _{rr}	V _R =400 V, I _F =10A, dI _F /dt=100 A/μs		340		ns
Reverse recovery charge	Q _{rr}			6.7		uC

Electrical Characteristic Curve

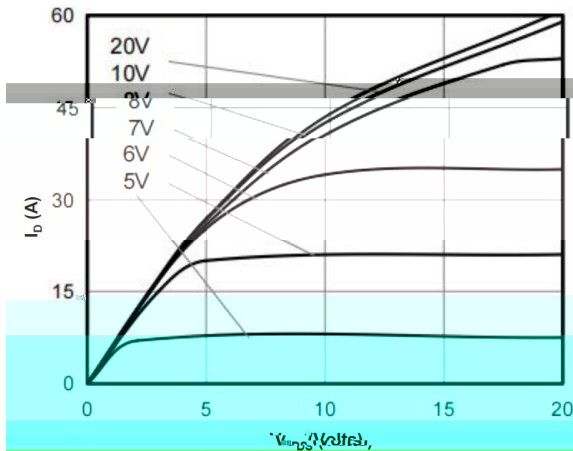


Figure 1: On-Region Characteristics

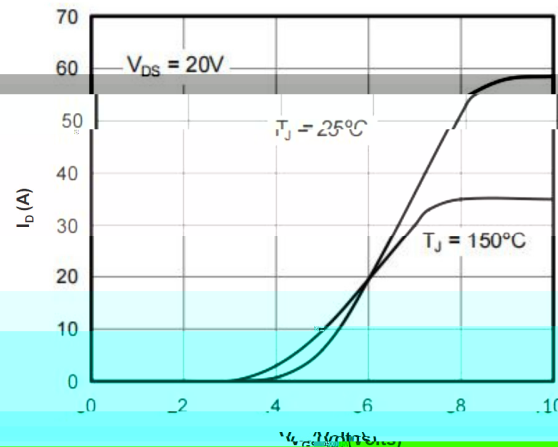


Figure 2: Transfer Characteristics

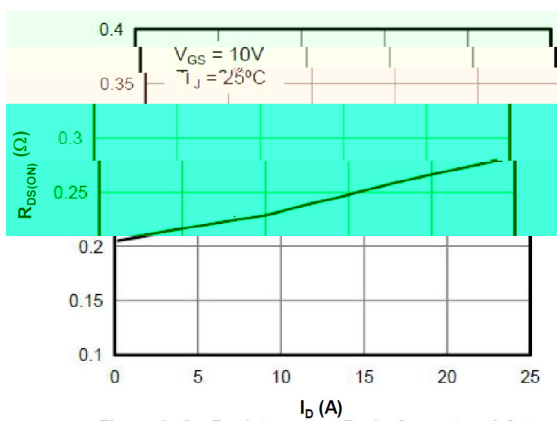


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

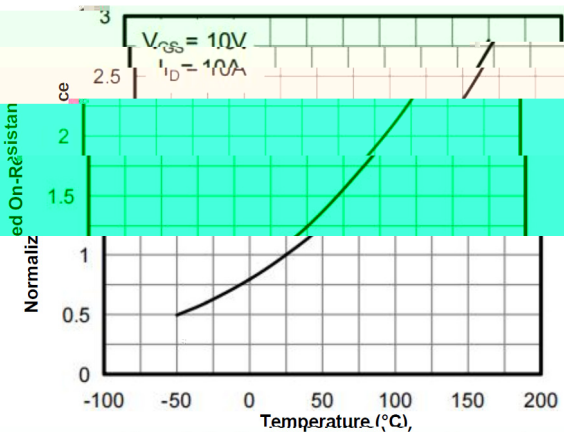


Figure 4: On-Resistance vs. Junction Temperature

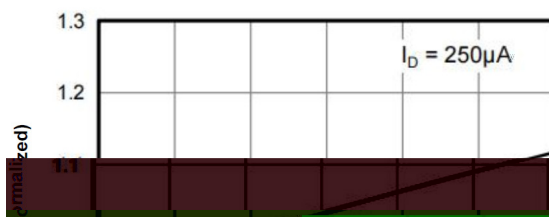


Figure 5: Drain-Source Leakage Current vs. Drain-Source Voltage

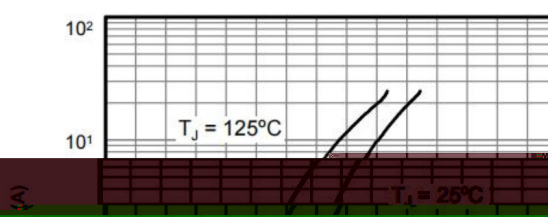
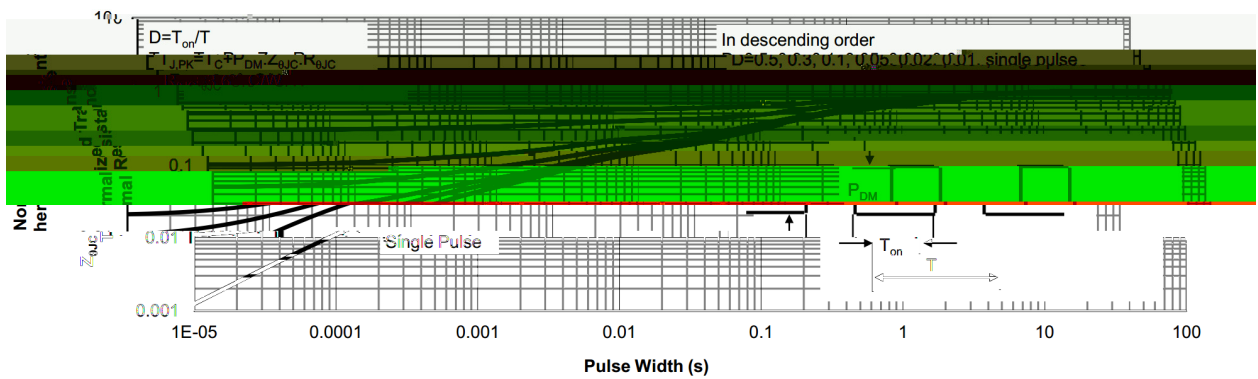
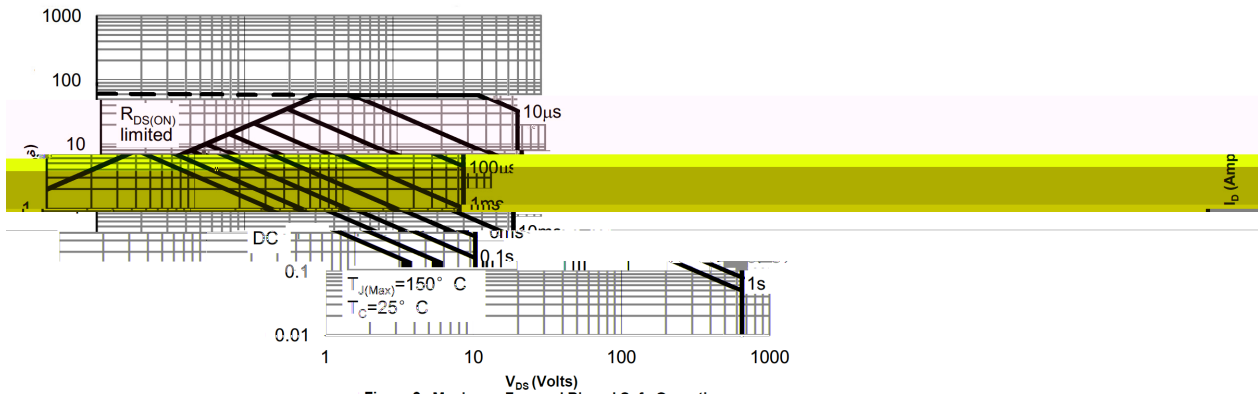
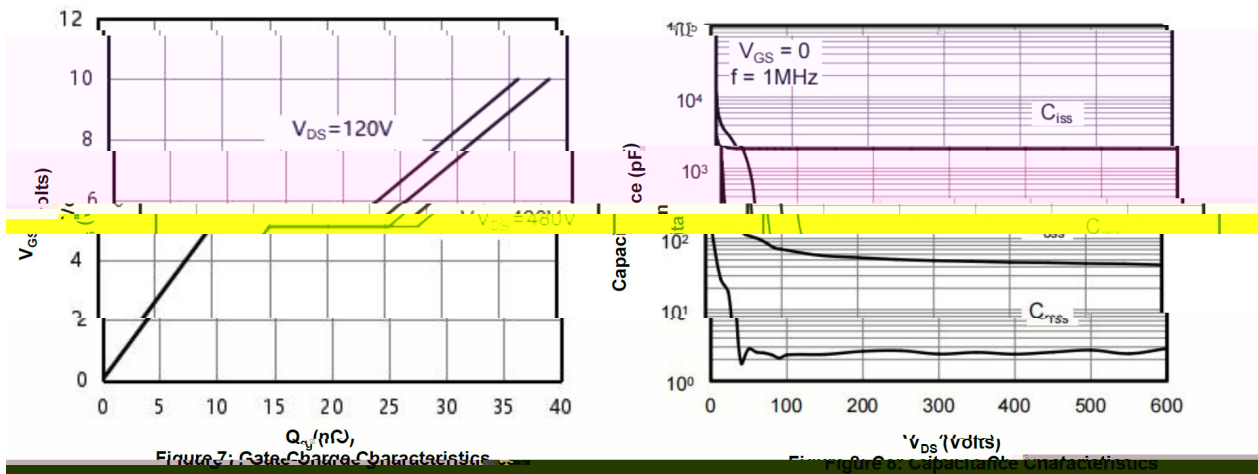
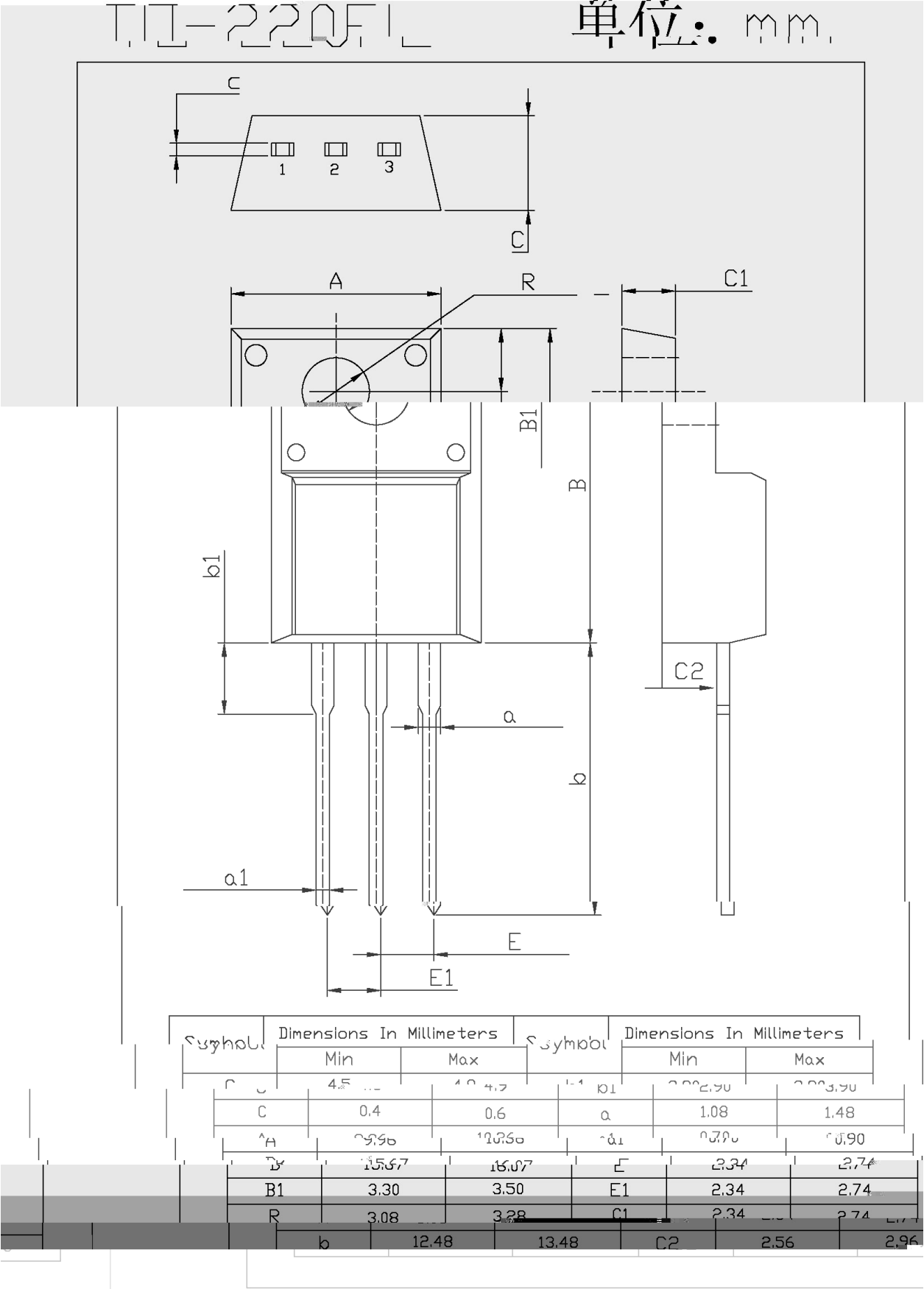


Figure 6: Drain-Source Leakage Current vs. Drain-Source Voltage

Electrical Characteristic Curve



⌘ É Ò Ì f / Package Dimensions



BRFL65R190C

Rev.A May.-2024



蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

1. 标记 / Marking Instructions



BR

65R190C

Note:

BR: Company Code

65R190C: Product Type Code

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

↓ \$ 71 W'E M f (Ω) / Temperature Profile for Dip Soldering(Pb-Free)

- 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.

↓ Ü 'Y T / Resistance to Soldering Heat Test Conditions

270 5

10 1 sec.

Temp.:270±5

Time:10±1 sec

9 — / Packaging SPEC.

/ TUBE