BRFL65R190C

Rev.A May.-2024

DATA SHEET

ˇYت / Descriptions

TO-220FL N

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

◕ Ề / Features

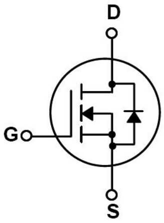
$R_{DS(on)}$×Qg 100% ROHS

Very low $R_{DS(on)}$×Qg,100%avalanche tested,RoHS compliant,HF Product.

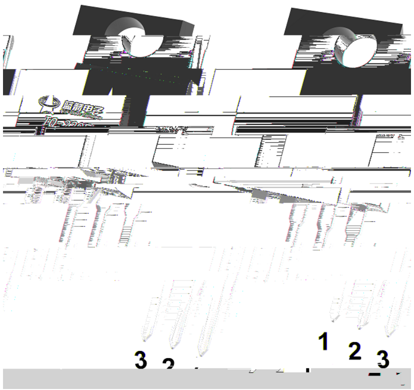
ง ڍ / Applications

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

Лق ἇ ؛ ع / Equivalent Circuit



ẫ ﾉ ủ / Pinning



PIN1 G PIN 2 D PIN 3 S

ɫ̣ ʜ ⅃ / Marking

See Marking Instructions.

≠ ﾉ ヨ Ạ / Electrical Characteristics(Ta=25 ɹ)

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

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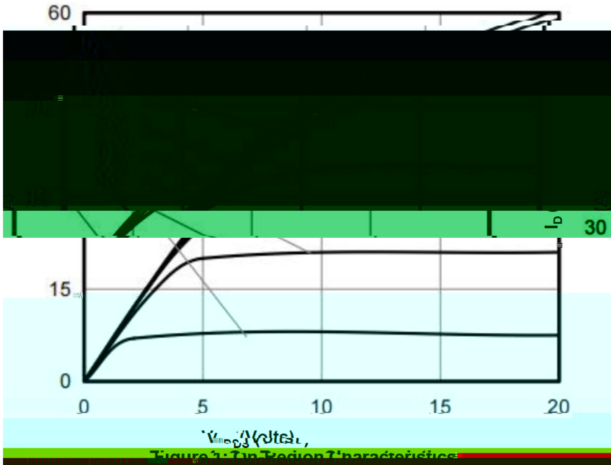
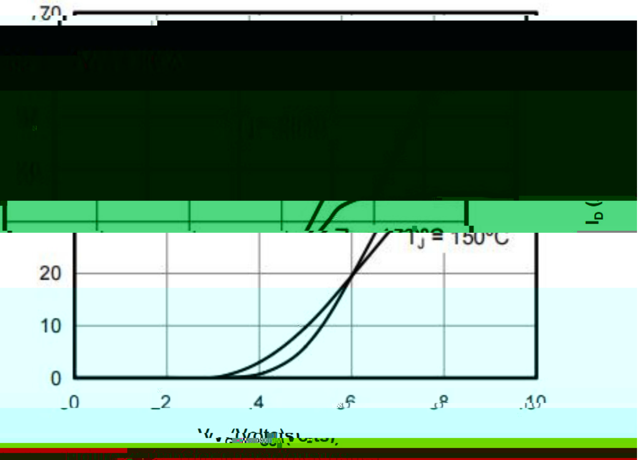
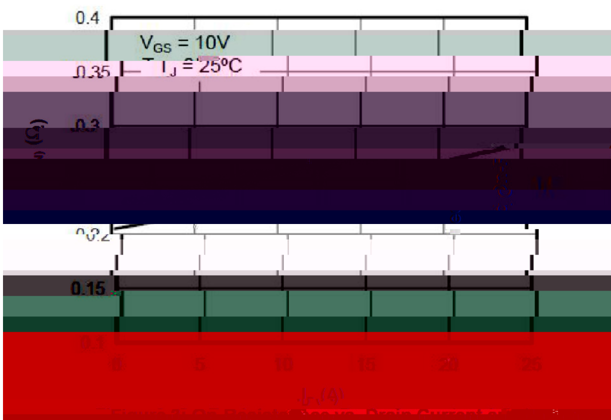
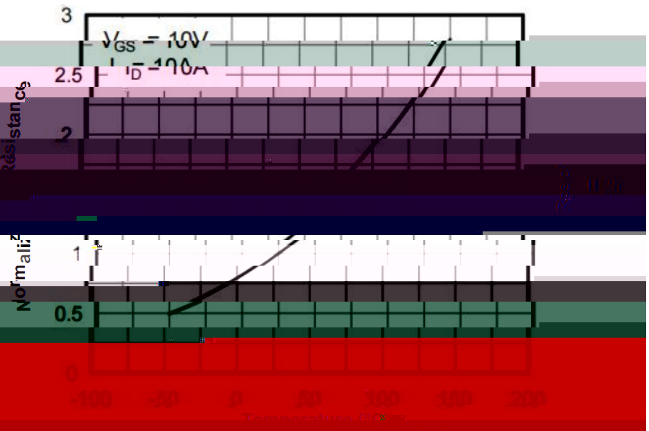
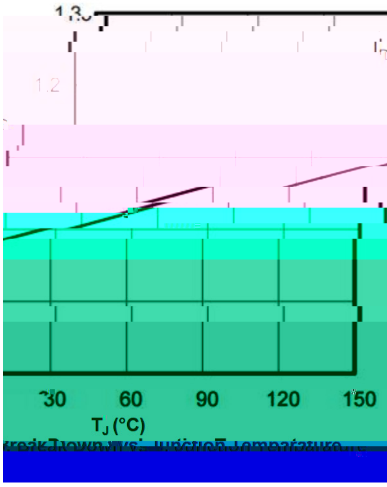


Figure 1: On-Region Characteristics

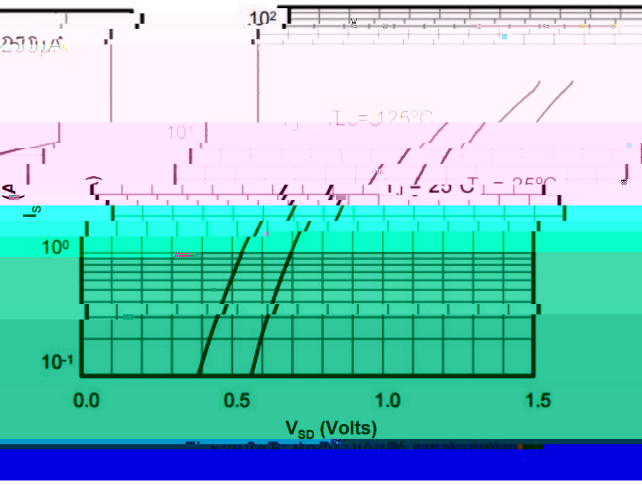


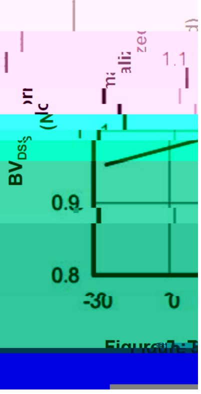






Breakdown vs. Junction Temperature





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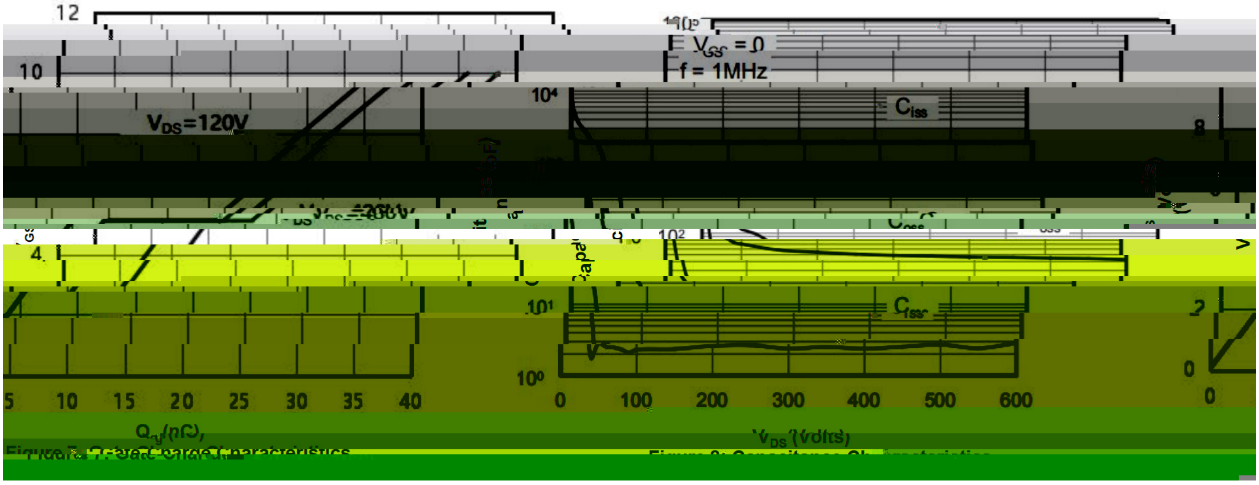


Figure 7: Gate Charge Characteristics

Figure 8: Capacitance Characteristics

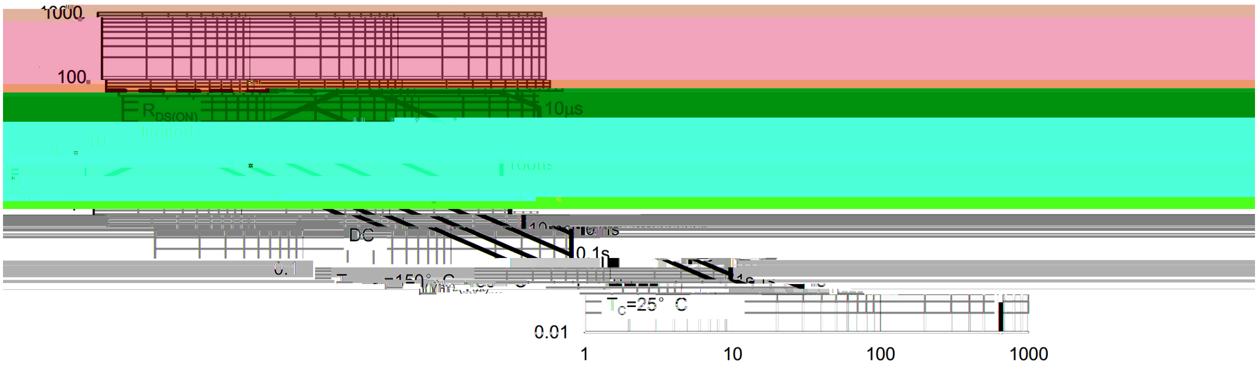
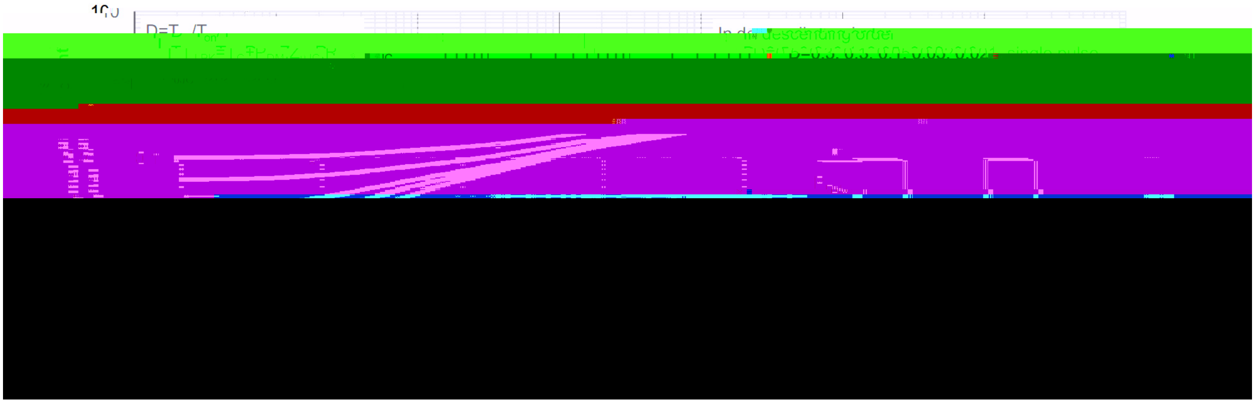


Figure 9: Maximum Forward Biased Safe Operating Area



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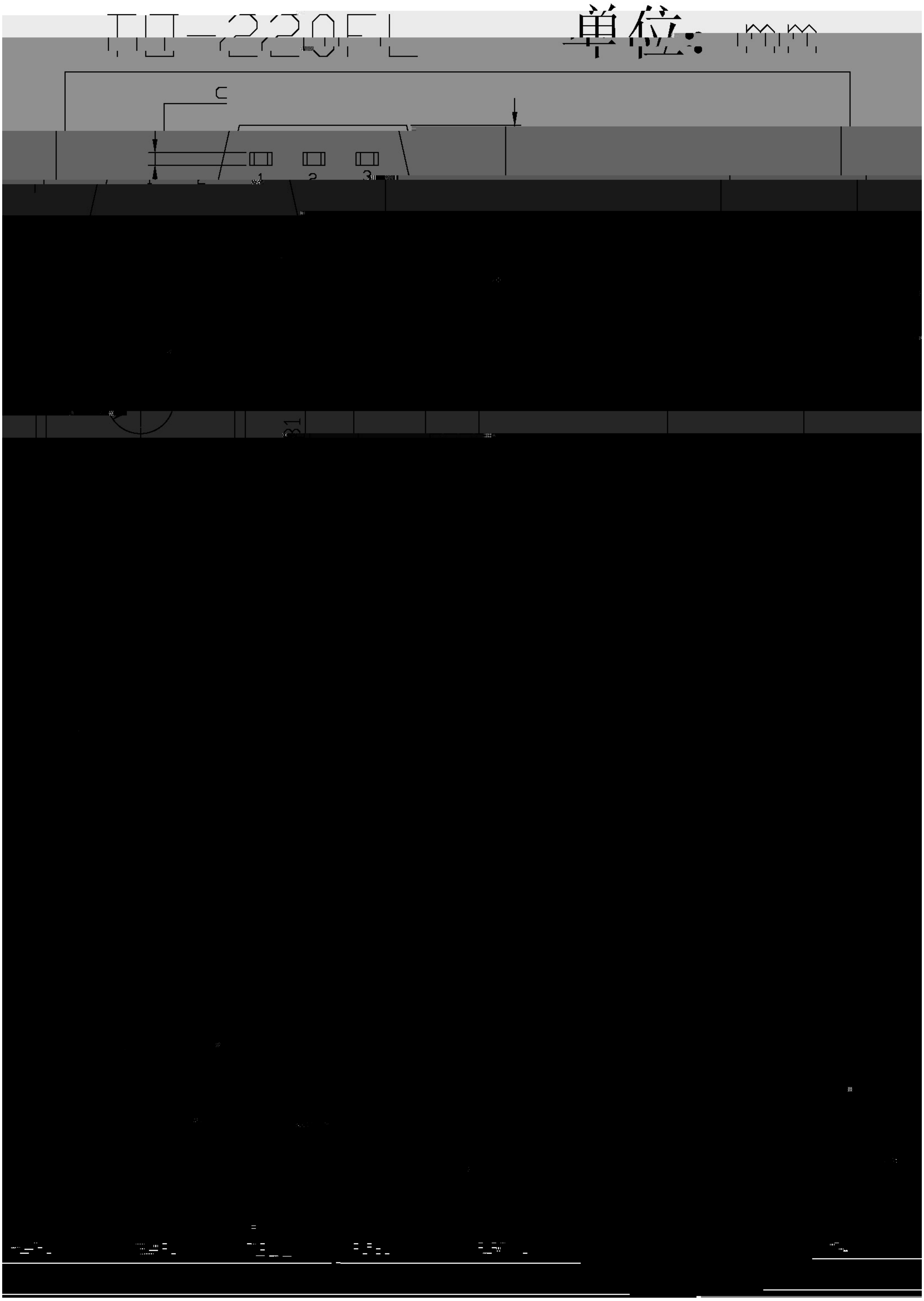
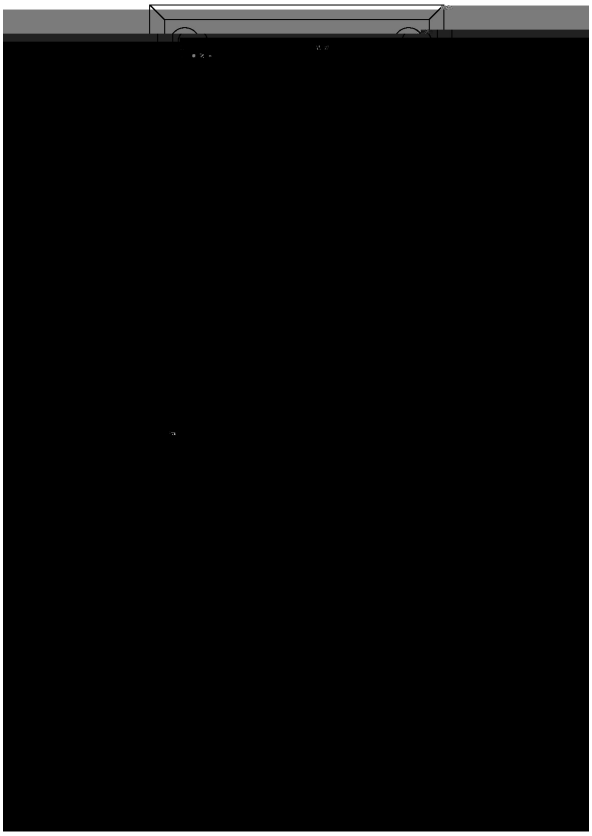


ł. L˝Ω / Marking Instructions



BR

65R190C

Note:

BR:	Company Code
65R190C:	Product Type Code
****:	Lot No. Code, code change with Lot No

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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.

ⅎ ü զ ̄ `Y Ţ / Resistance to Soldering Heat Test Conditions

270 5 10 1 sec. Temp.:270±5 Time:10±1 sec

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