

/ Descriptions

TO-220FL N 650V

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

/ Features

 $R_{DS(on)} \times Q_g$ 100%

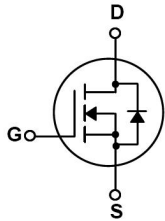
ROHS

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

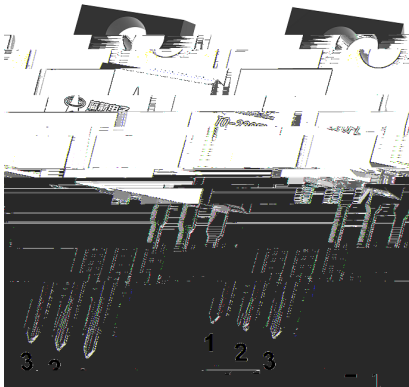
/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN1 G

PIN 2 D

PIN 3 S

/ Marking

See Marking Instructions.

BRFL65R190T

Rev.A Apr.-2025



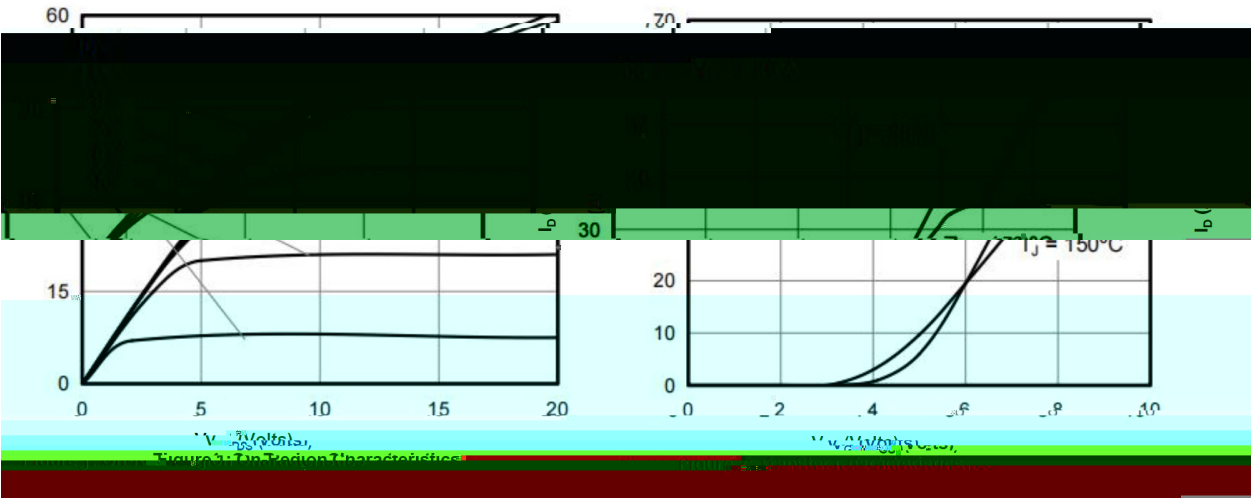
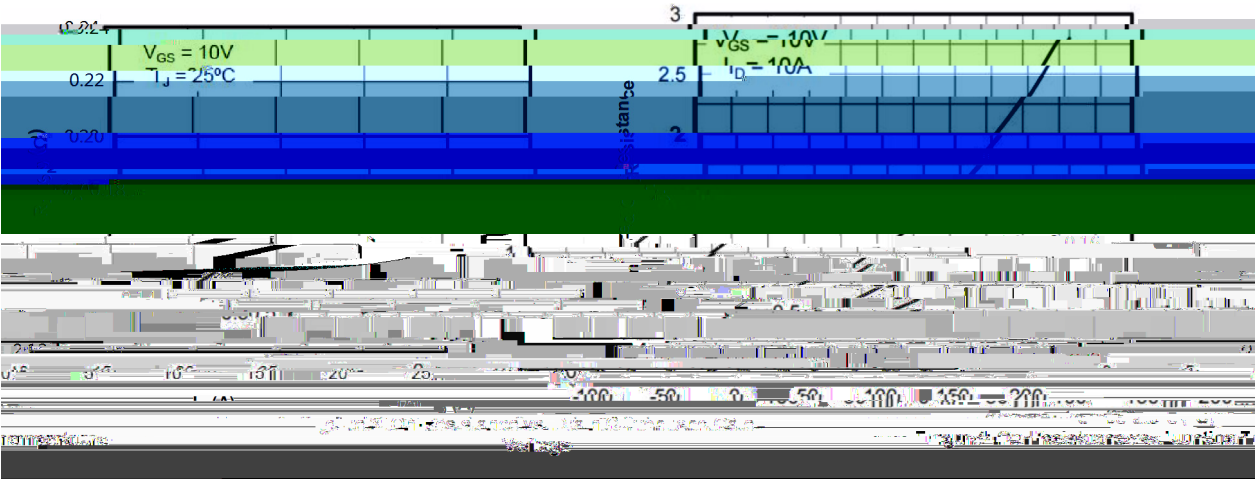
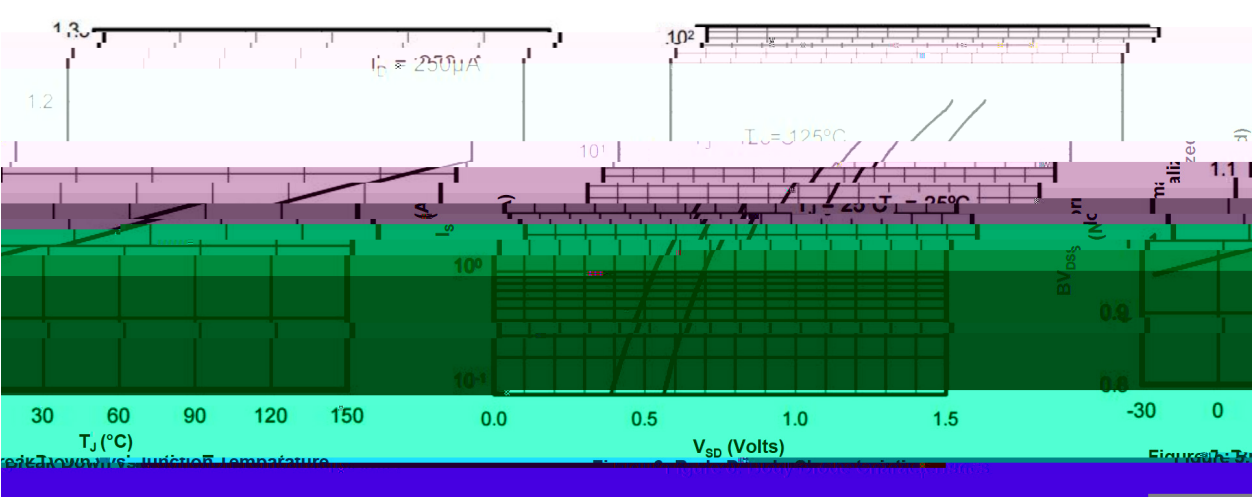
蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

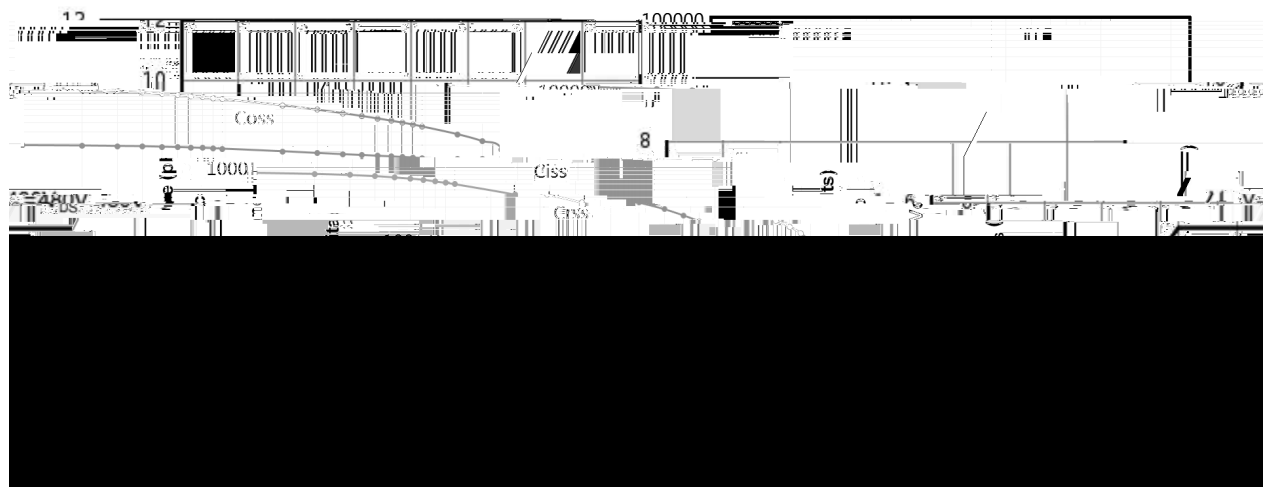
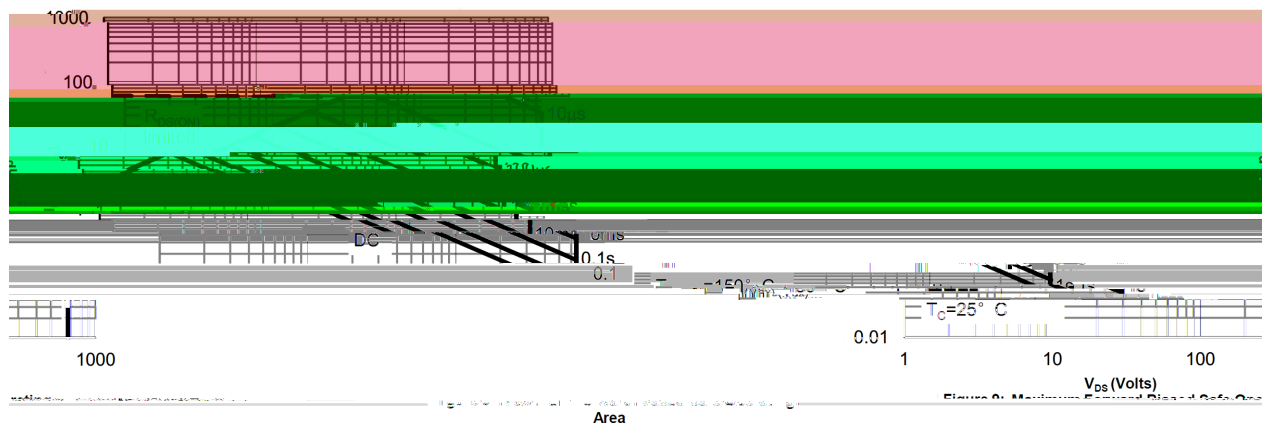
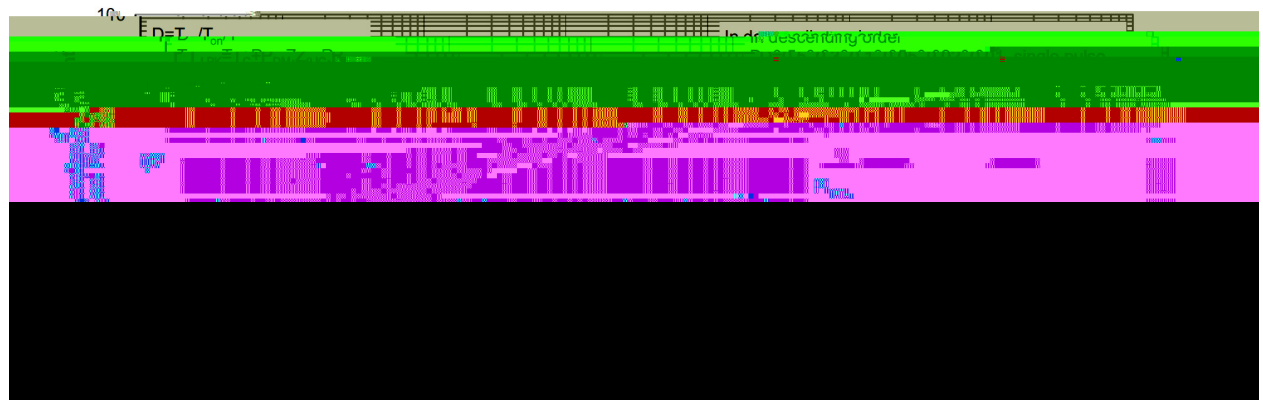
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	650	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	20	A
Drain Current - Pulsed	I_{DM}	60	A
Gate-Source Voltage	V_{GS}	± 30	V
Single Pulsed Avalanche Energy	E_{AS}	478.6	mJ
Avalanche Current	I_{AS}	9.4	A
Power Dissipation	$P_D(T_C=25^\circ\text{C})$	34	W
Operating and Storage Temperature Range	T_J, T		

BRFL65R190T

/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



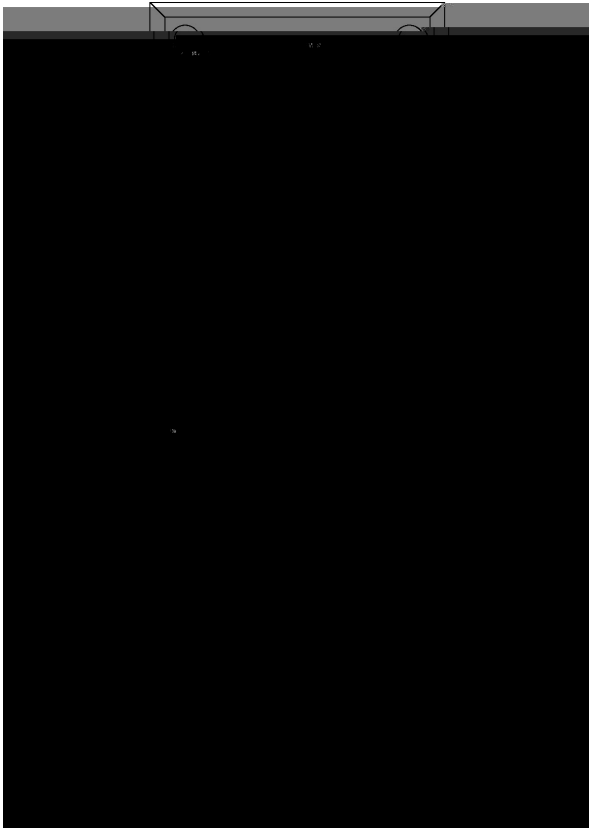
BRFL65R190T
Rev.A Apr.-2025



蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

/ Marking Instructions

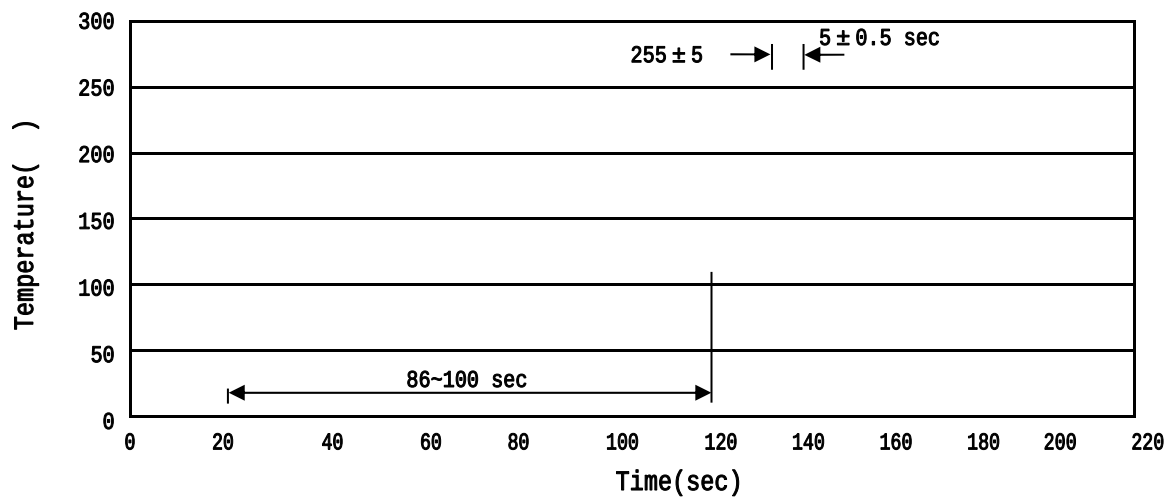


BR
65R190T

Note:

BR:	Company Code
65R190T:	Product Type Code
****:	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 °C , Time:60~90sec.
- 2

255±5

5±0.5sec;

2.Peak Temp.:255±5 °C , Duration:5±0.5sec.
- 3

2 10

/sec.

3. Cooling Speed: 2~10 °C /sec.

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ 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-220FL	50	20	1,000	5	5,000	532×33×7.0	555×164×50	575×290×180

/ Notices