BRFL65R190T

Rev.A Apr.-2025

DATA SHEET

/ Descriptions

TO-220FL N 650V

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

/ Features

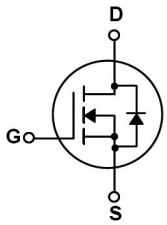
$R_{DS(on)}$×Qg 100% ROHS

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

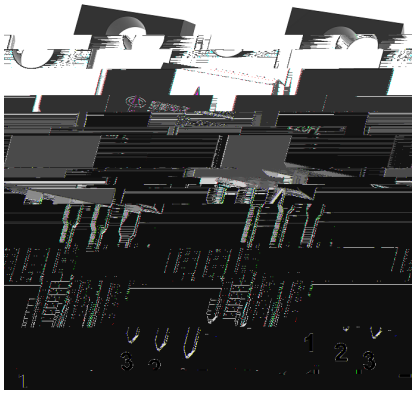
/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN1 G PIN 2 D PIN 3 S

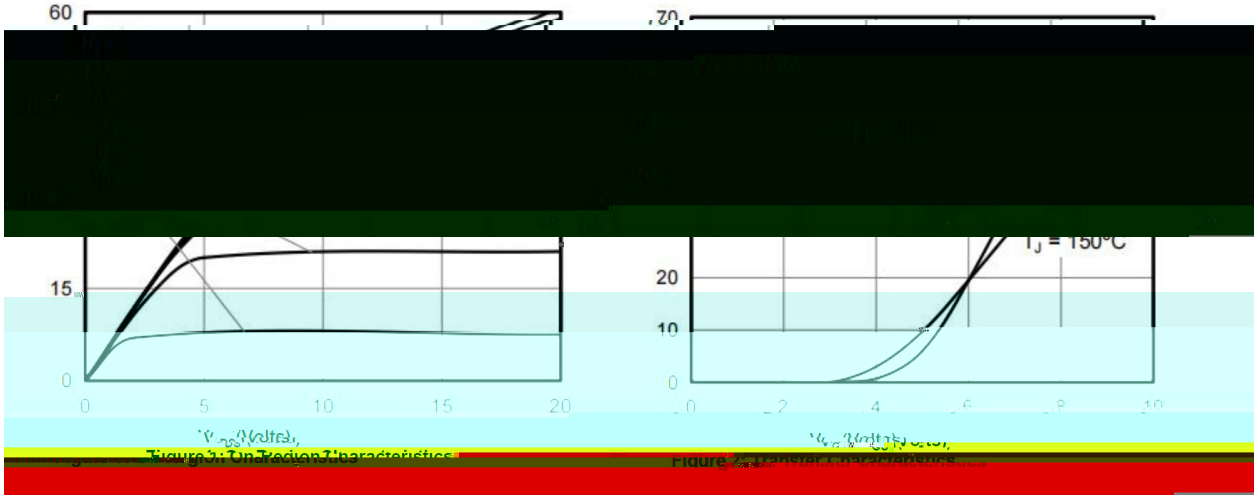
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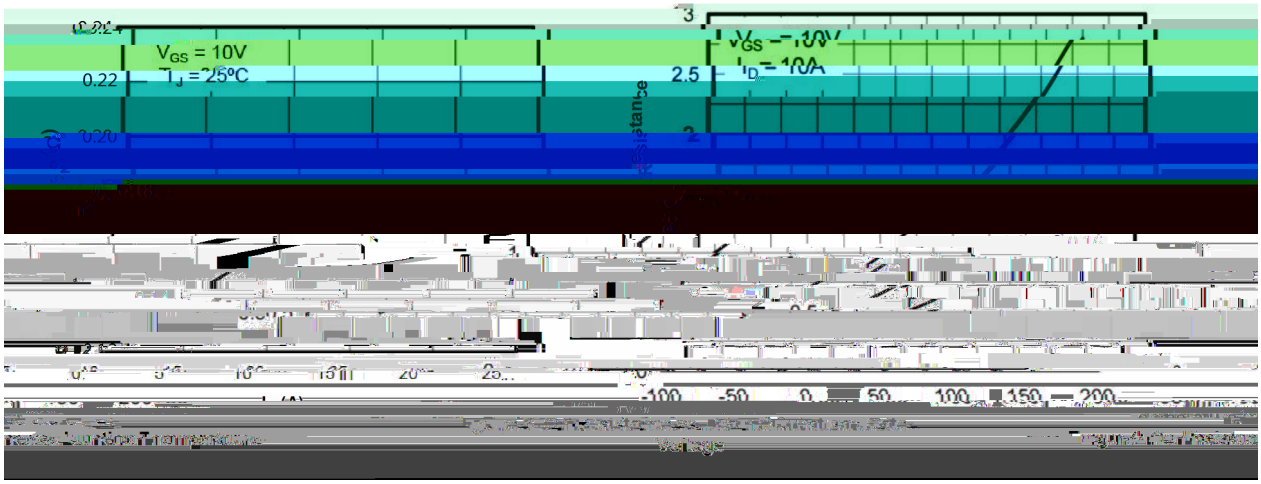
See Marking Instructions.

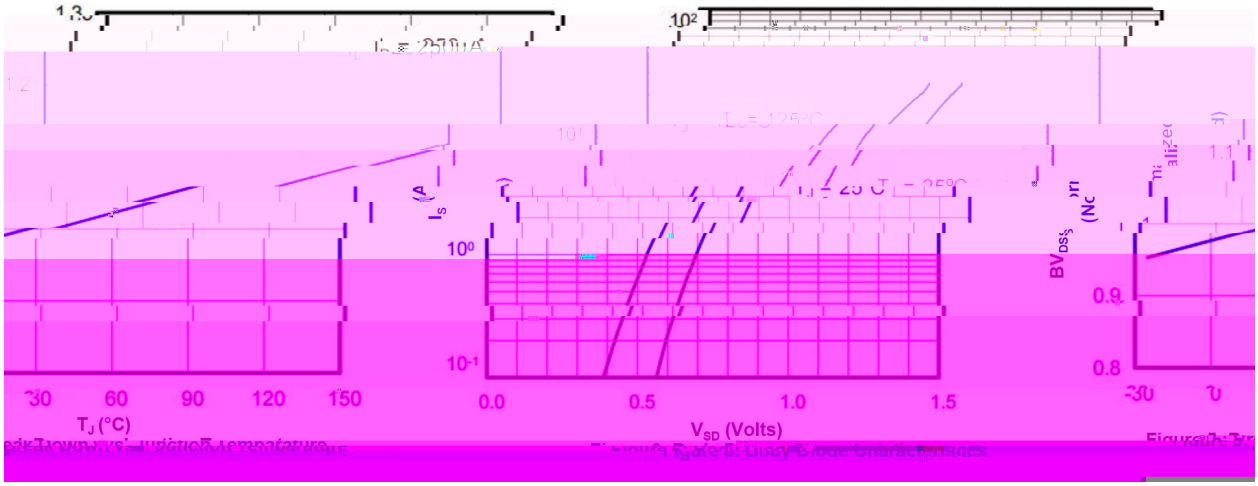
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	650	V
Drain Current	I_D(Tc=25)	20	A
Drain Current - Pulsed	I_{DM}	60	A
Gate-Source Voltage	V_{GS}	±30	V
Single Pulsed Avalanche Energy	E_{AS}	478.6	mJ
Avalanche Current	I_{AS}	9.4	A
Power Dissipation	P_D(Tc=25)	34	W
Operating and Storage Temperature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

BRFL65R190T

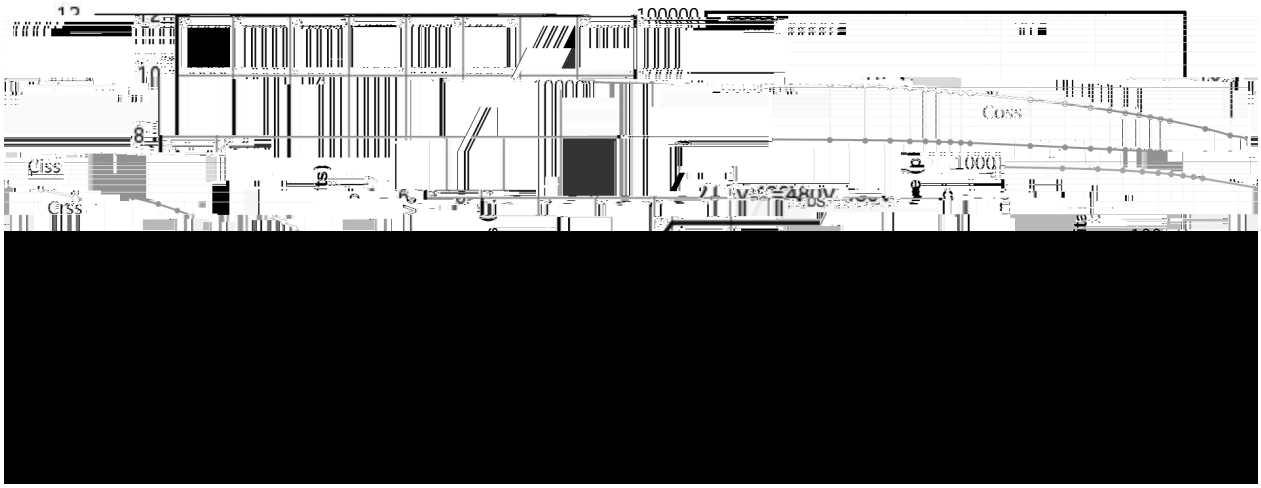
/ Electrical Characteristic Curve

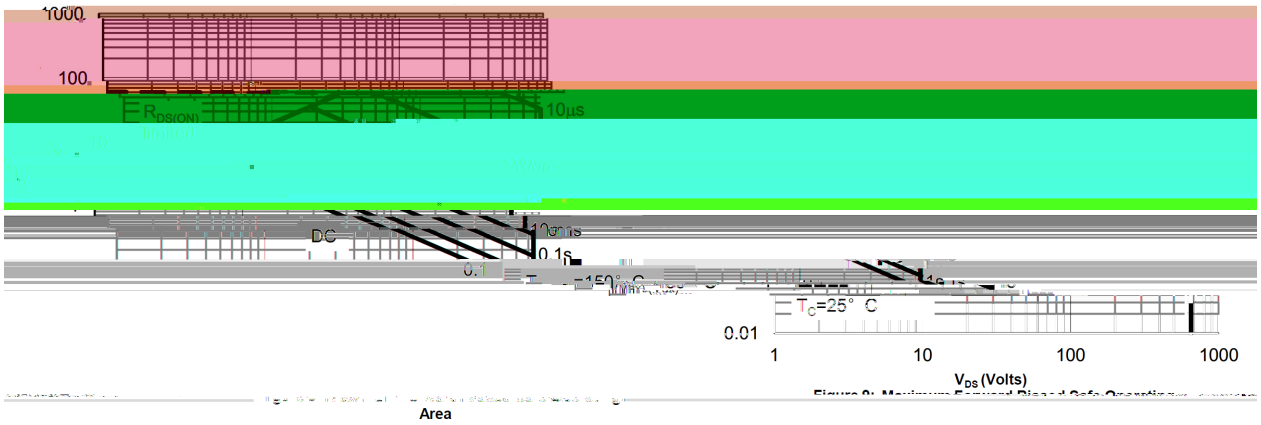


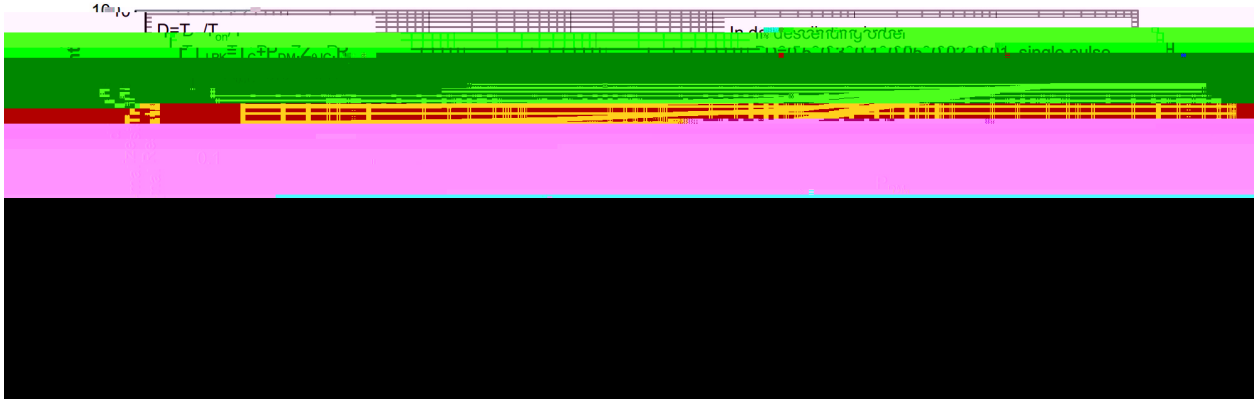




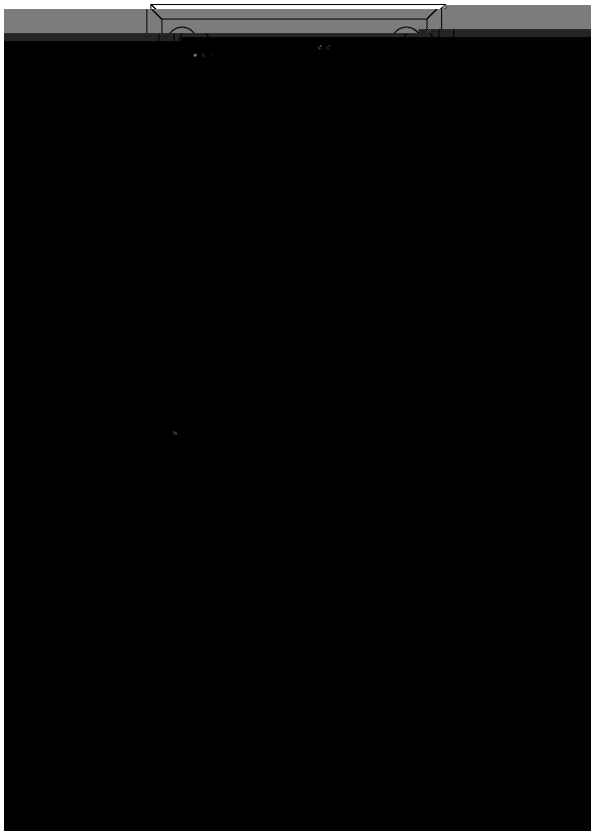
/ Electrical Characteristic Curve







/ Marking Instructions



BR

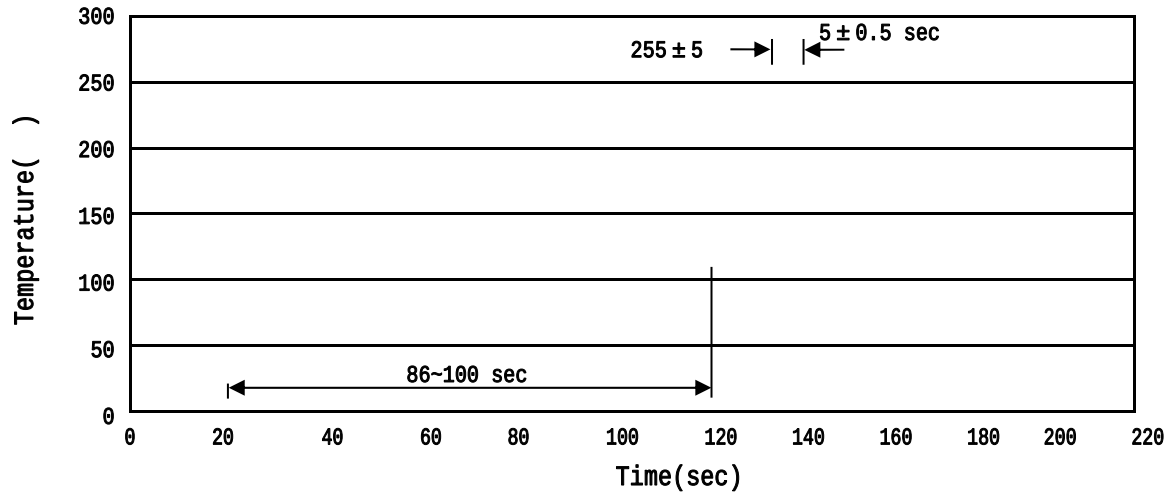
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Note:

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;
2		255±5			5±0.5sec;
3			2	10	/sec.

1.Preheating:25~150 , Time:60~90sec.
2.Peak Temp.:255±5 , Duration:5±0.5sec.
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.

/ TUBE

Package Type	Units					Dimension (unit mm³)		
	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