

/ 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%

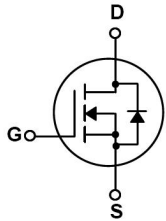
ROHS

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

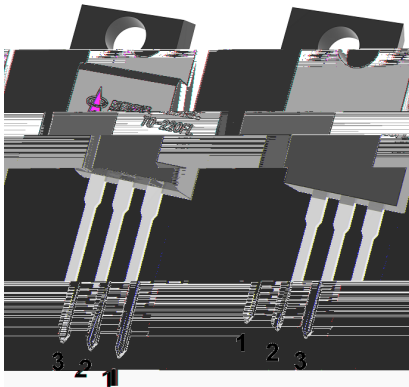
/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN1 G

PIN 2 D

PIN 3 S

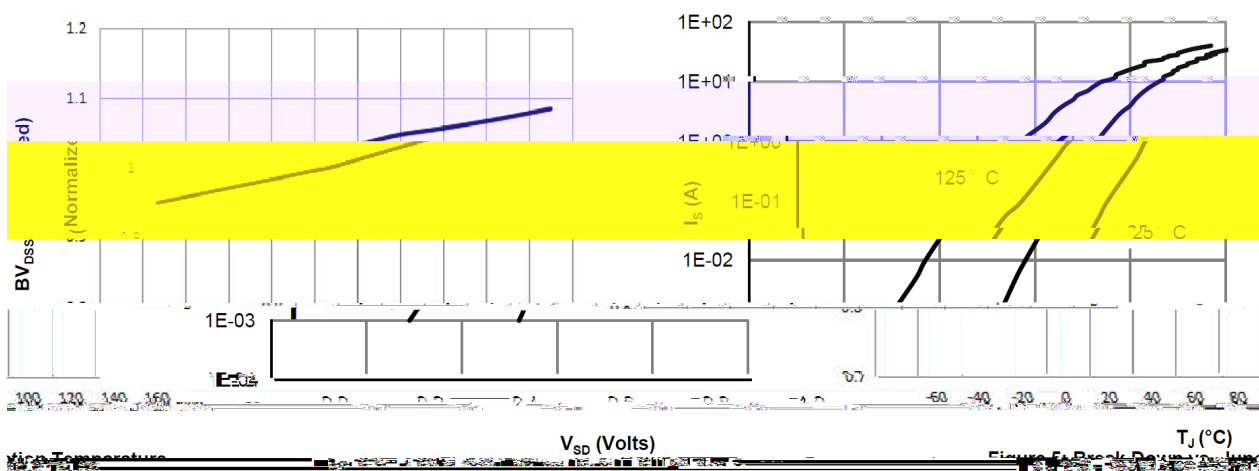
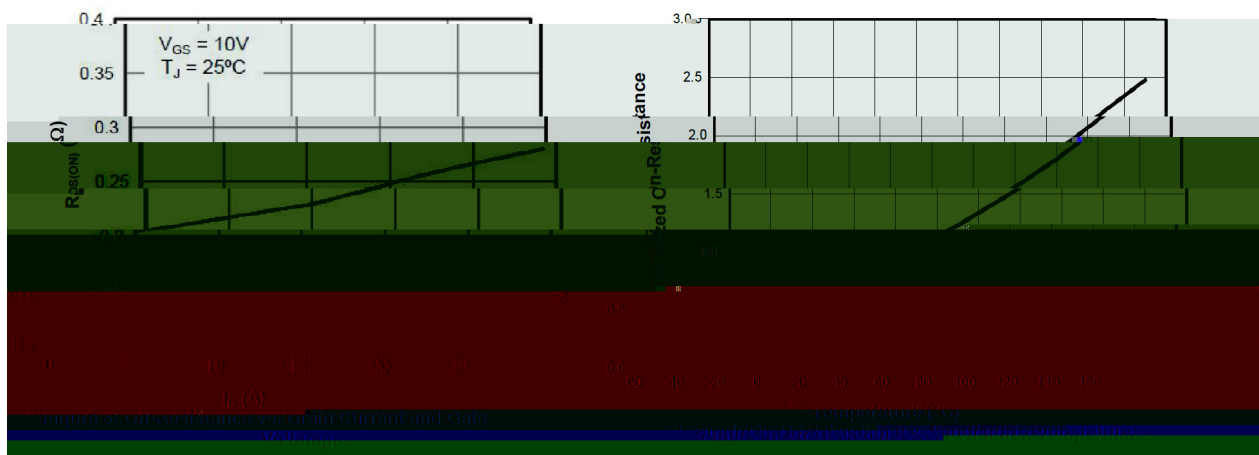
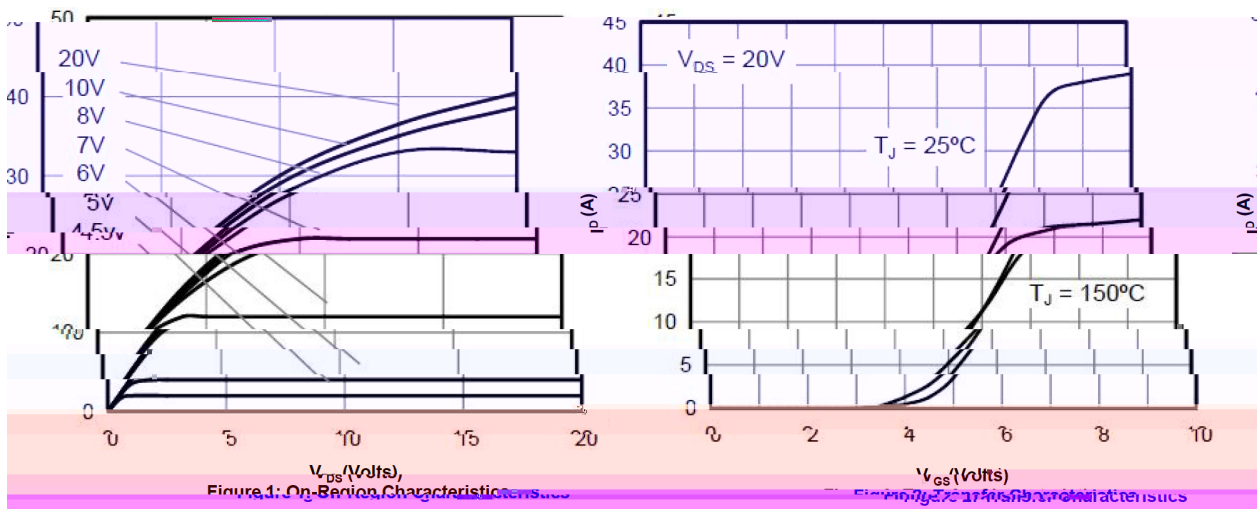
/ Marking

See Marking Instructions.

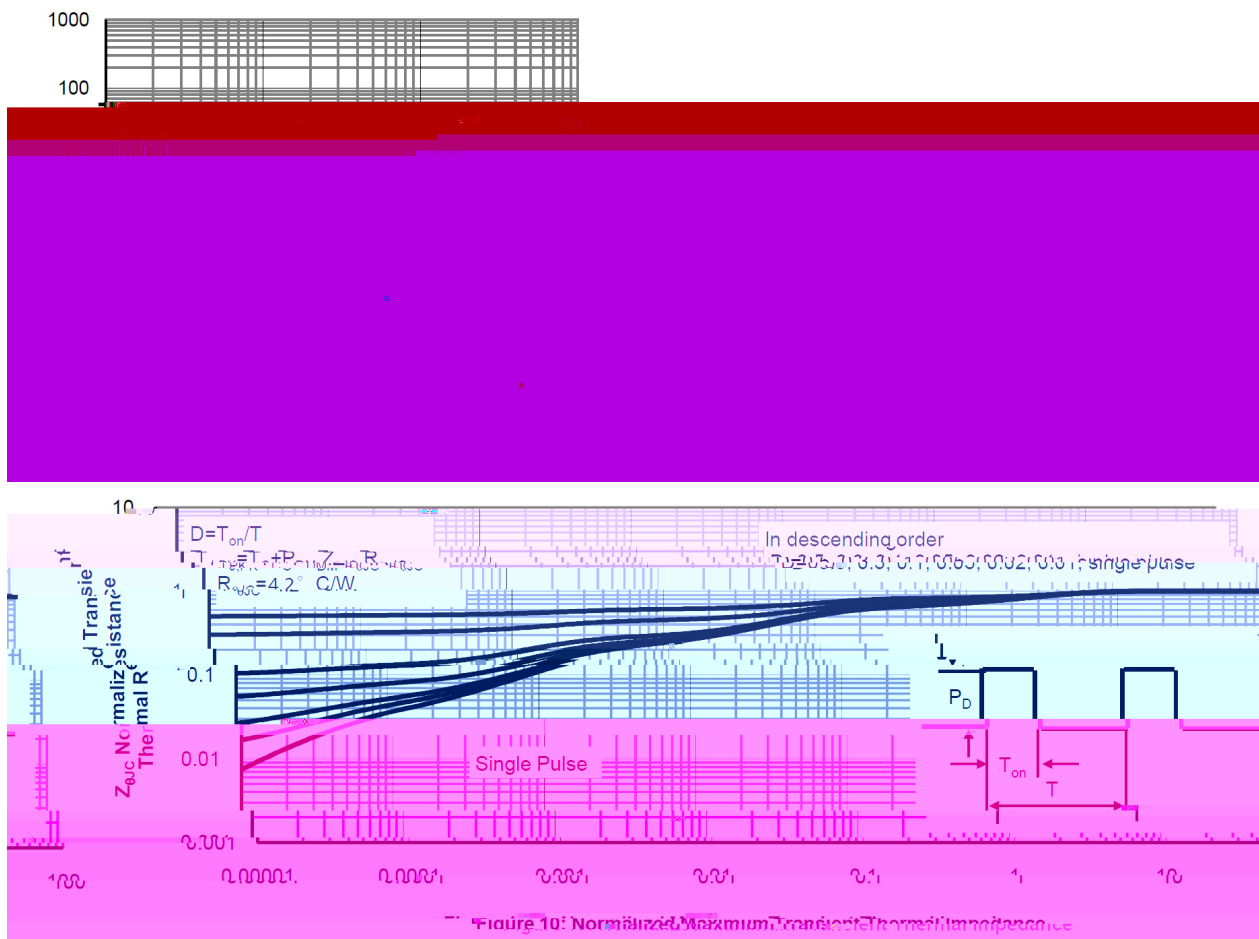
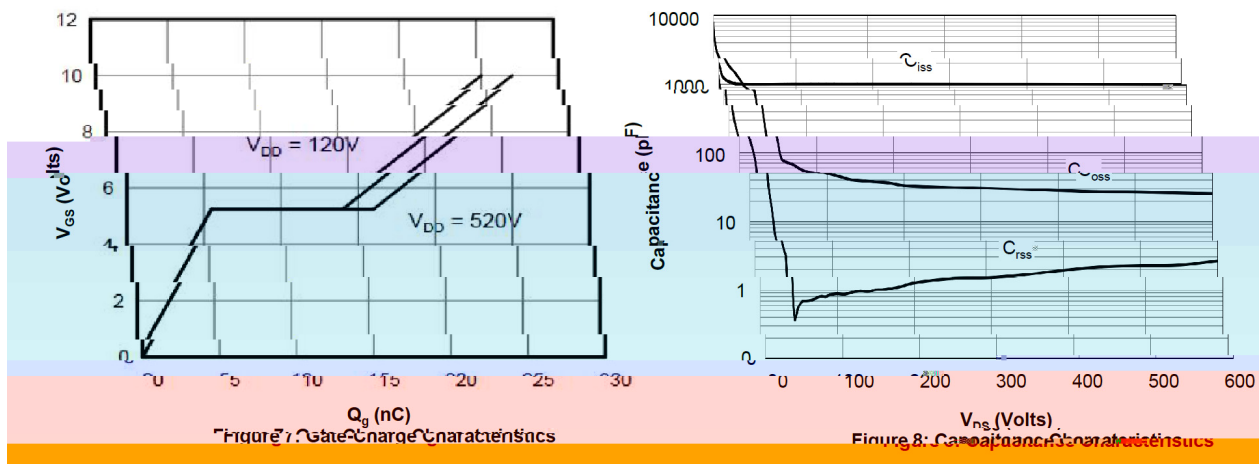
/ Electrical Characteristics(Ta=25 –)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Continuous Diode Forward Current	I_S				14	A
Total Gate Charge	Q_g	$V_{DS}=520V \quad I_D=7.5A$ $V_{GS}=10V$		26		nC
Gate-Source Charge	Q_{gs}			3.6		nC
Gate-Drain Charge	Q_{gd}			10.5		nC
Reverse recovery time	t_{rr}	$V_R=400V, \quad I_F=7.5A,$ $dI_F/dt=100A/\mu s$		405		ns
Reverse recovery charge	Q_{rr}			4.0		uC

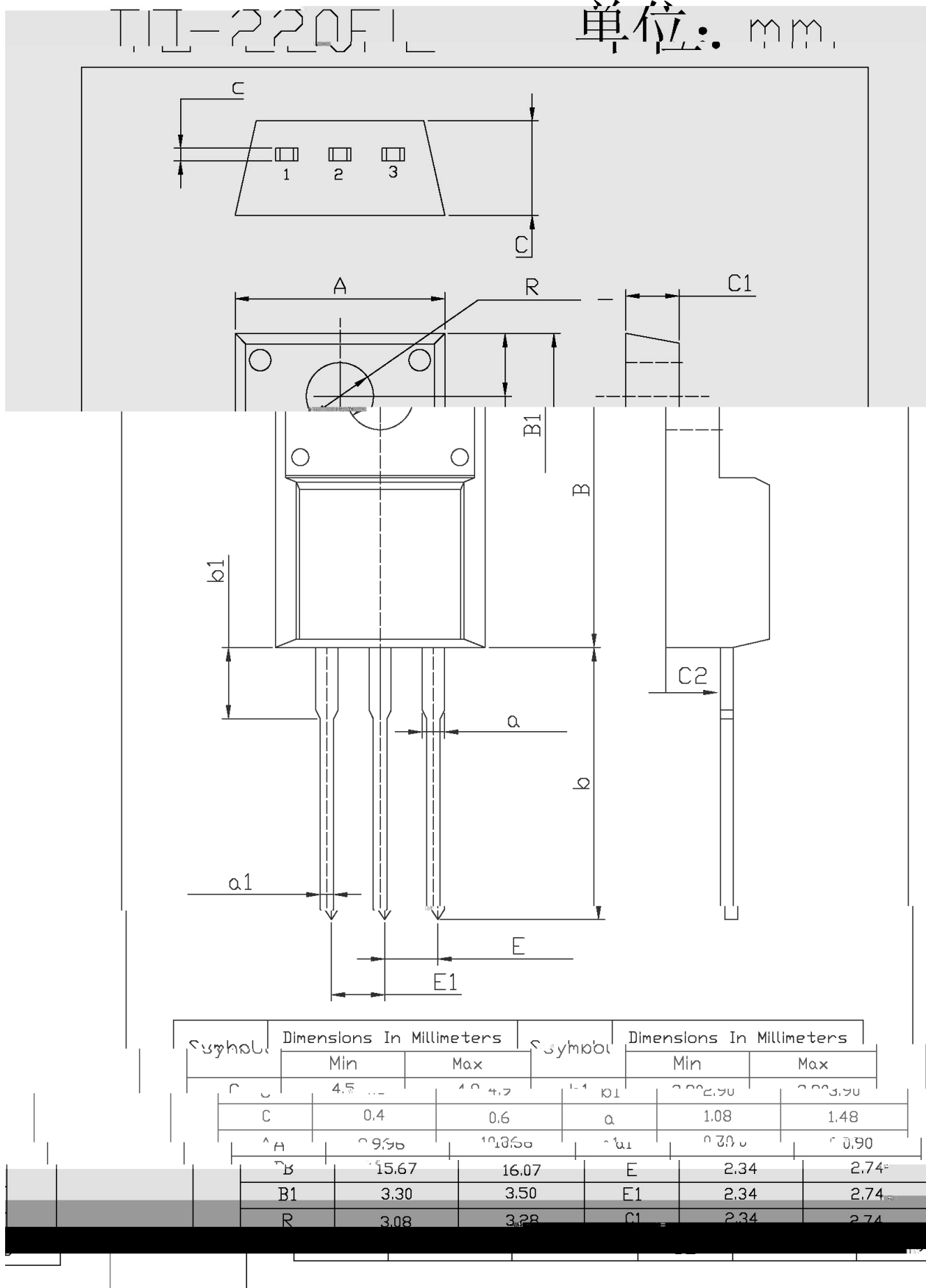
/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



/ Package Dimensions





/ Marking Instructions



BR

65R280C

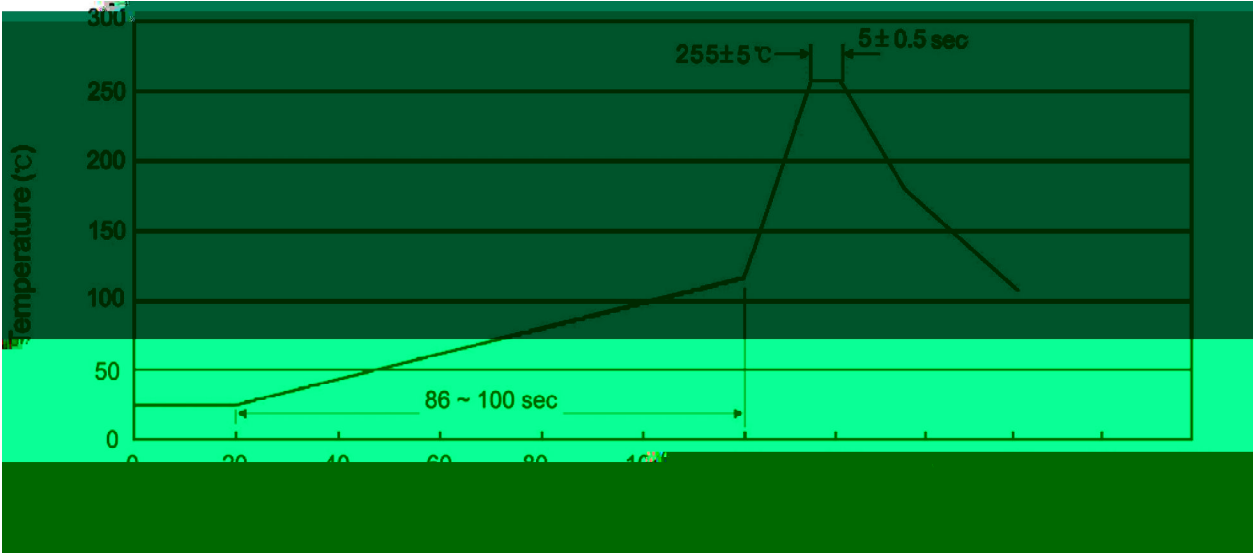
Note:

BR: Company Code

65R280C: Product Type

****: 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 mm ³)		
TO-220FL	50	20	1,000	5	5,000	532×33×7.0	555×164×50	575×290×180

/ Notices