

/ Descriptions

TO-220FL N

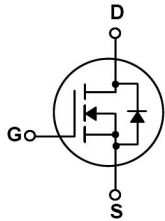
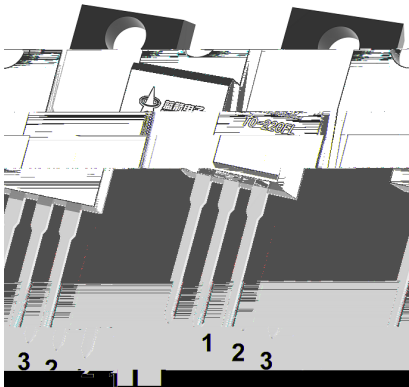
N-CHANNEL 650V Super-Junction Power MOSFET in a TO-220FL Plastic Package.

/ 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

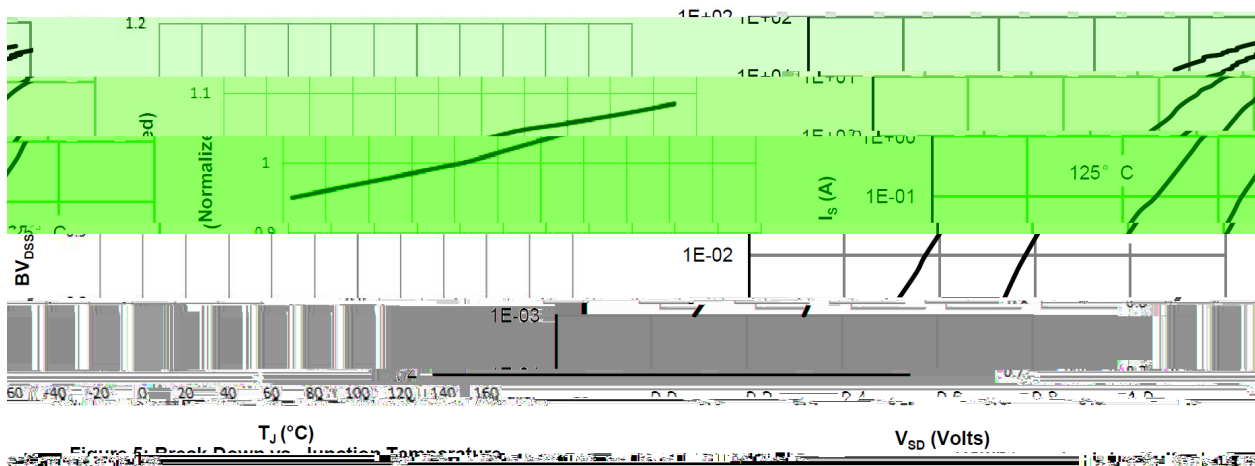
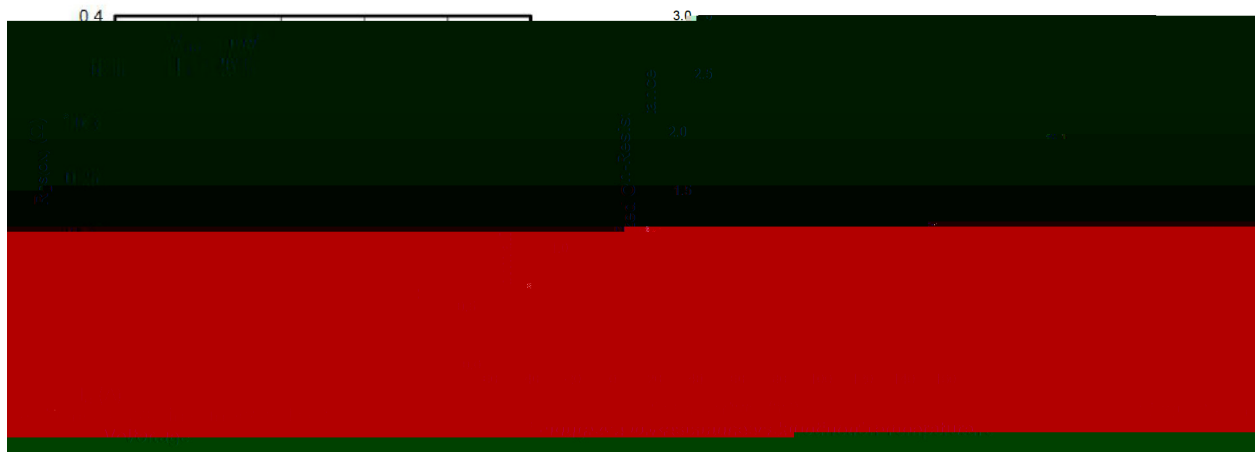
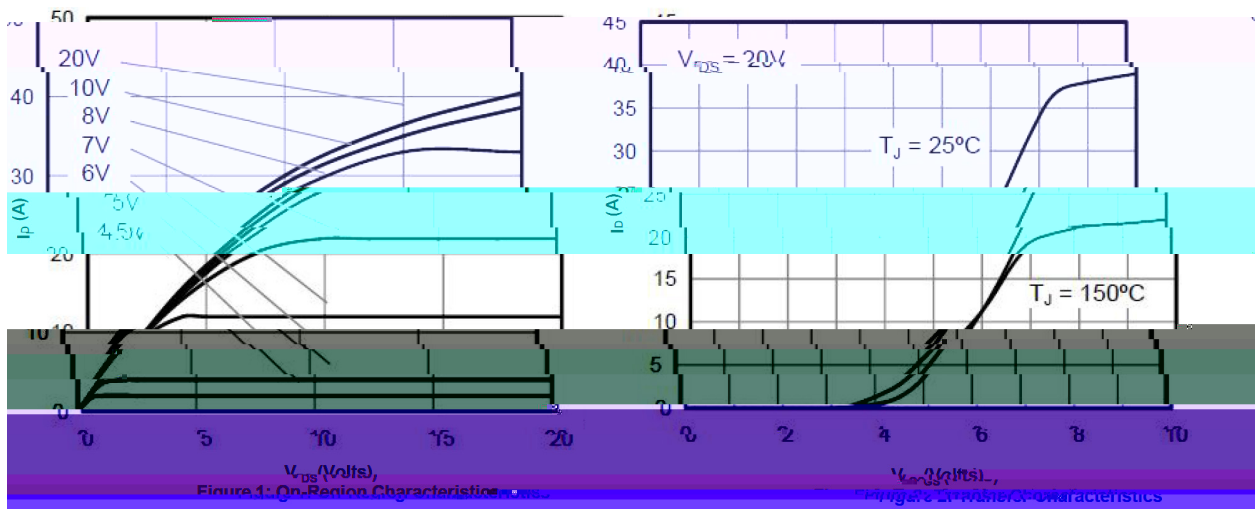
/ Marking

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

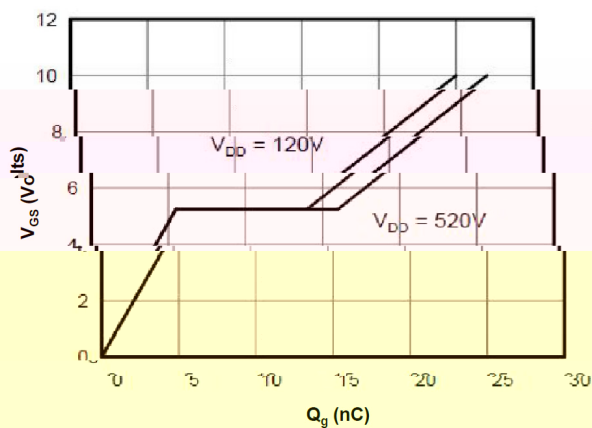


Figure 7: Gate Charge Characteristics

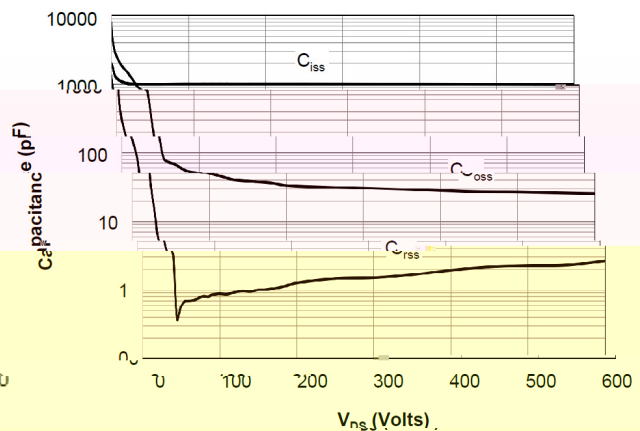


Figure 8: Capacitance Characteristics

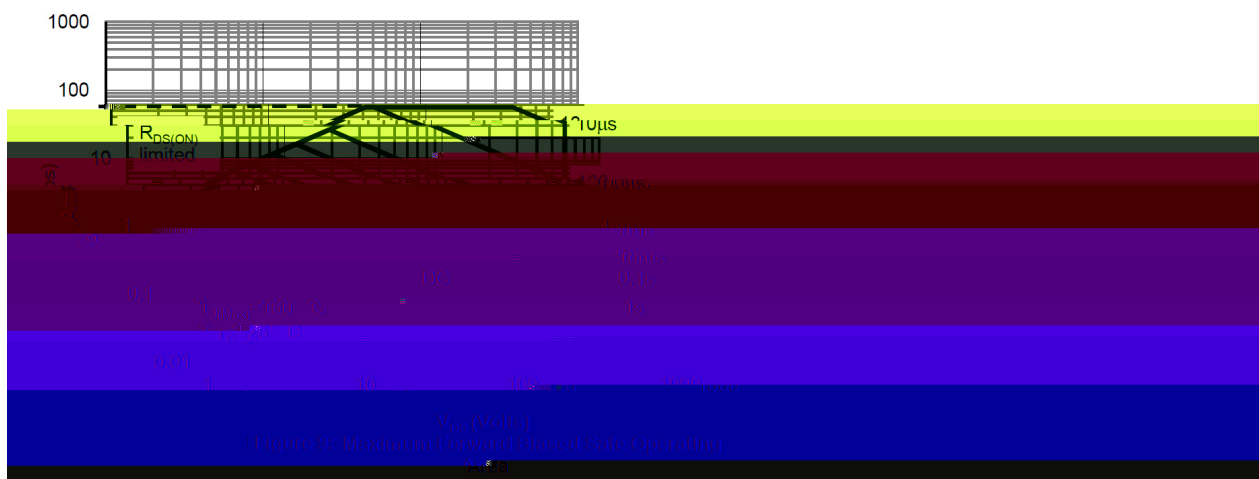


Figure 9: Maximum Forward Biased Safe Operating Area

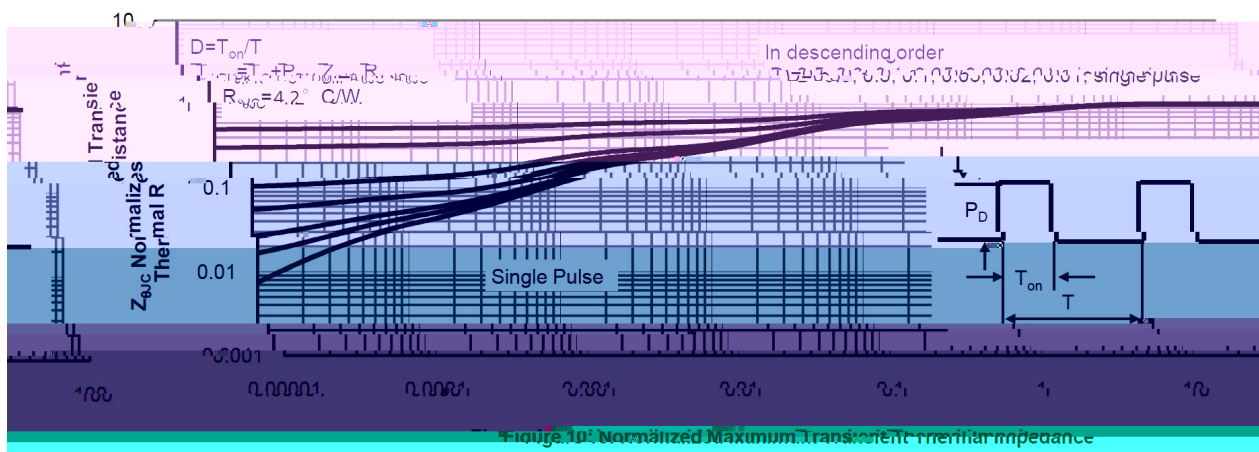
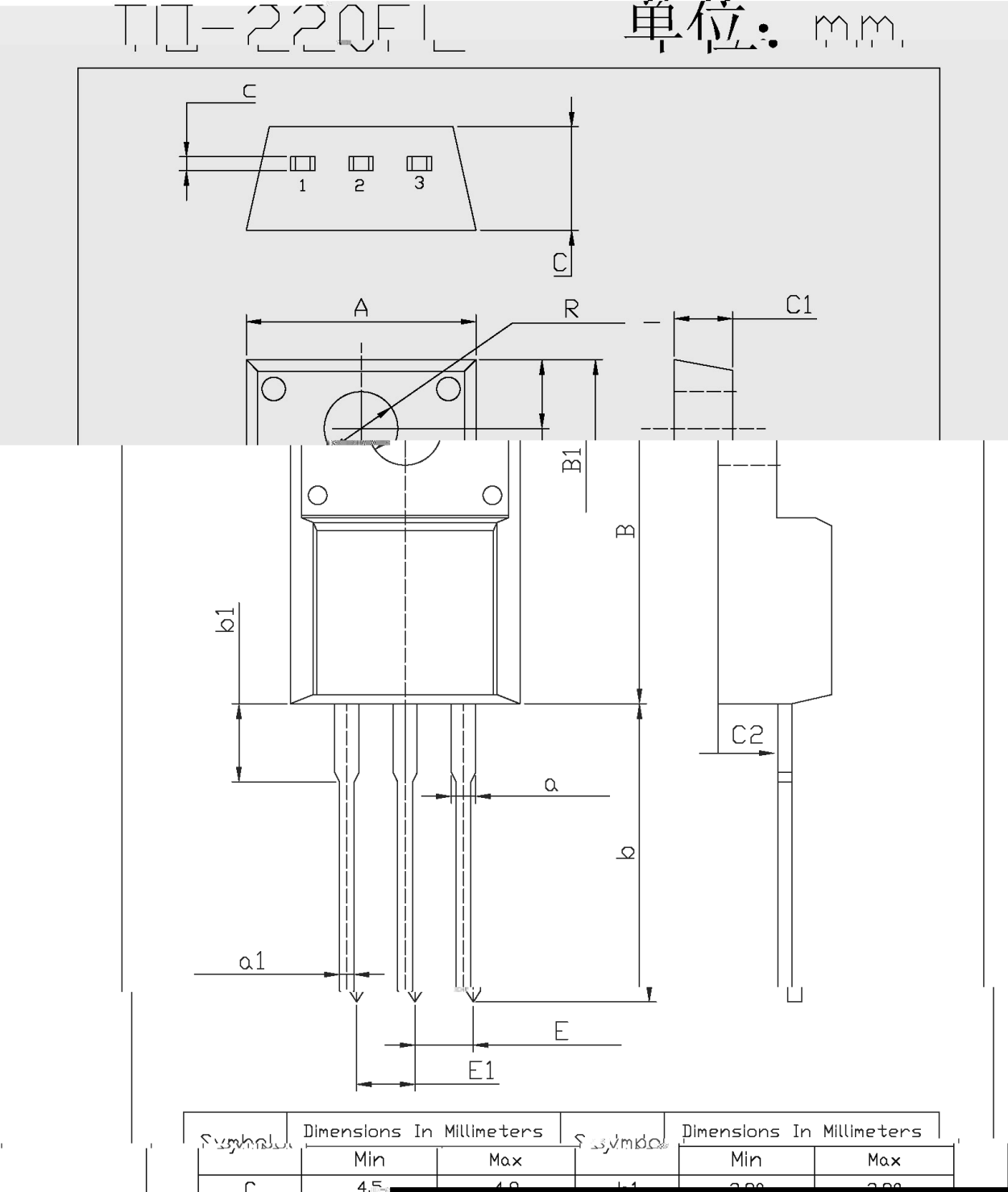
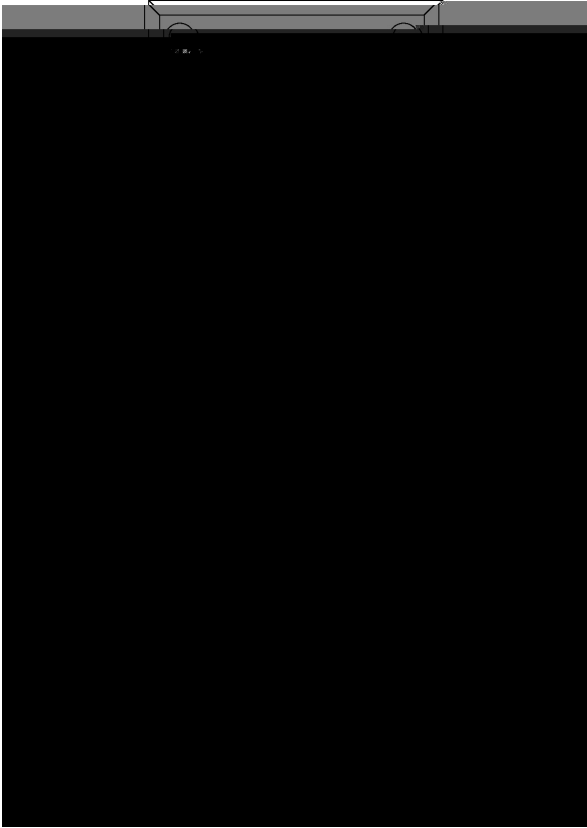


Figure 10: Normalized Maximum Transient Thermal Impedance

/ Package Dimensions



/ Marking Instructions



BR

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