/ Descriptions

TO-220FL N 700V

N-CHANNEL 700V Super-Junction Power MOSFET in a TO-220FL Plastic Package.

/ Features

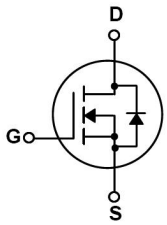
$R_{DS(on)}$×Qg 100% RoHS

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

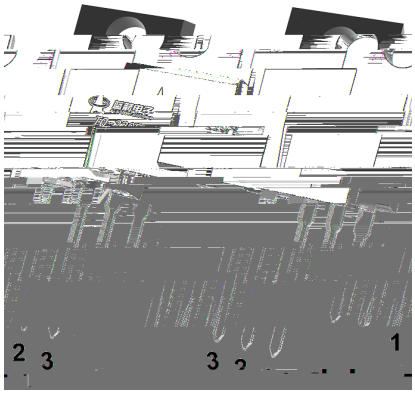
/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN1 G PIN 2 D PIN 3 S

/ Marking

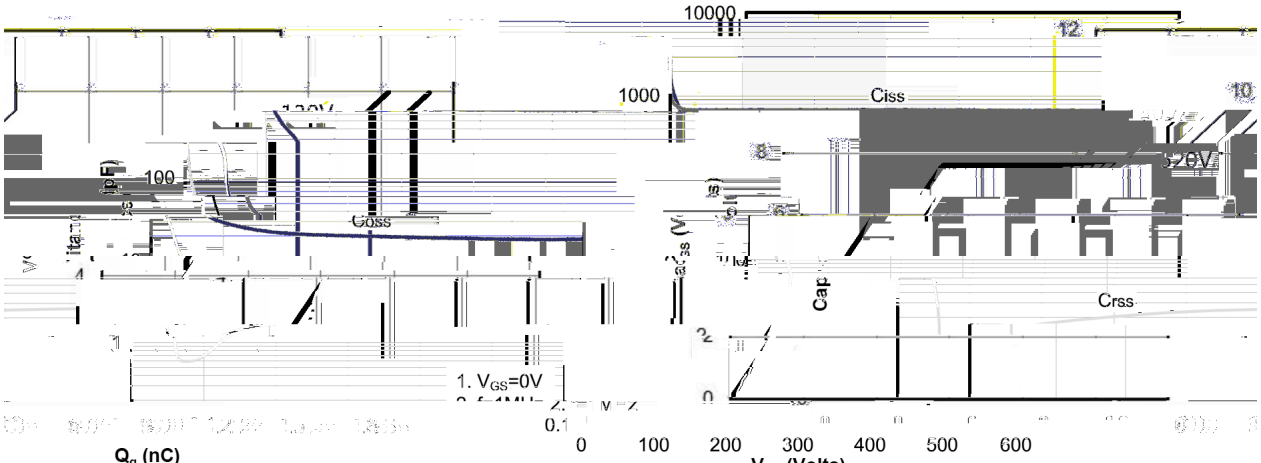
See Marking Instructions.

Parameter	Symbol	Rating	Unit
n-Source Voltage	V_{DSS}	700	V
n Current	I_D(Tc=25)	7	A
n Current - Pulsed	I_{DM}	28	A
Source Voltage	V_{GS}	±30	V
d Avalanche En	E_{AS}	200	mJ
nt	I_{AS}	6.1	A
Powe	P_D(Tc=25)	31	W
Operating a perature Range	T_J,T_{STG}	-55 to 150	
Junction-to- e	R JC	4	/W
Junction-to- ient	R JA	62.5	/W

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain-Source akdo	BV_{DSS}	V_{GS}=0V	I_D=250 A	700	745		V
Zero Gate Vo rent	I_{DSS}	V_{DS}=700V T_J=25	V_{GS}=0V			1.0	A
Gate-Bod rrent, Forwa	I_{GSS}	V_{GS}=±30V				±100	nA
C Voltage	$V_{GS(th)}$	V_{DS}=V_{GS}	I_D=250 A	2.5	3.4	4.5	V
-Source istance	$R_{DS(on)}$	V_{GS}=10V	I_D=3.5A		495	600	m
n-Source Diode Forward oltage	V_{SD}	V_{GS}=0V T	I_{SD}=7A				

Parameter Symbol

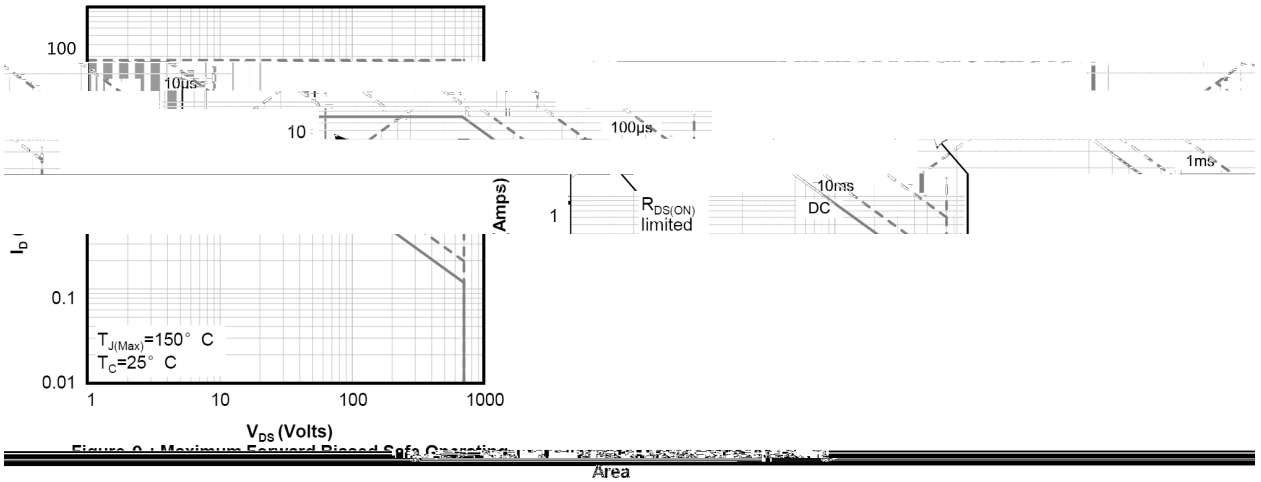
/ Electrical Characteristic Curve



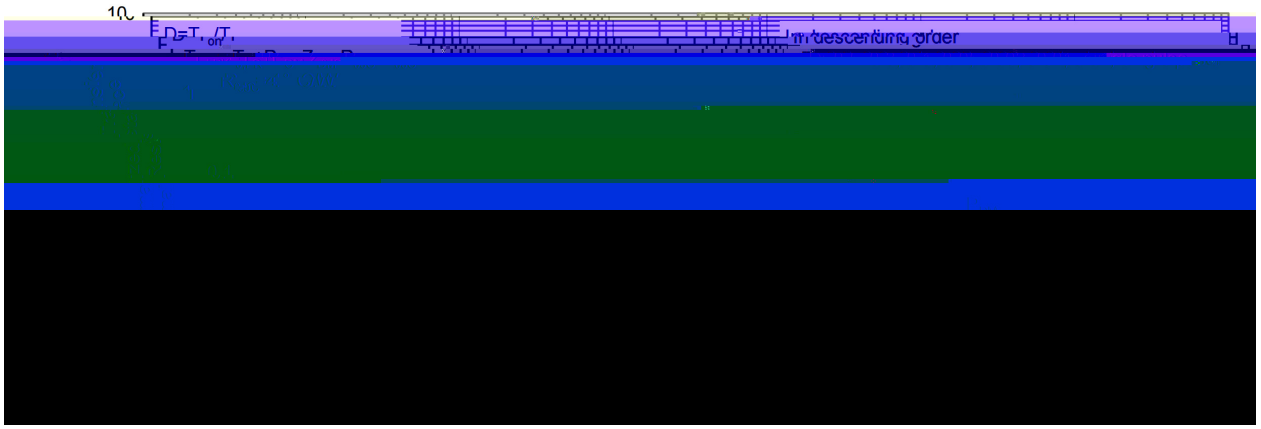
ure 7: Gate-Charge Characteristics

Figure 8: Capacitance Characteristics

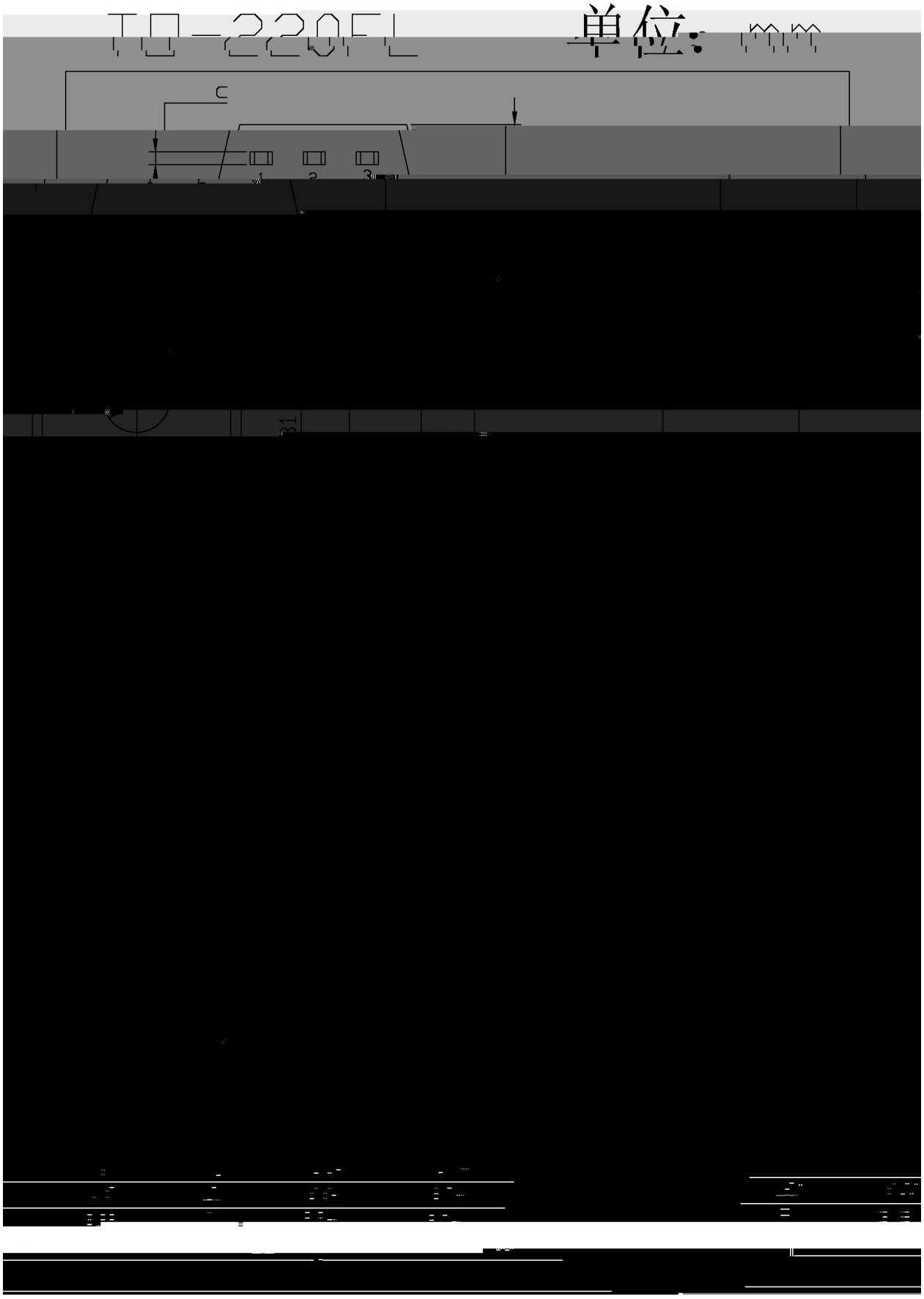
Fig



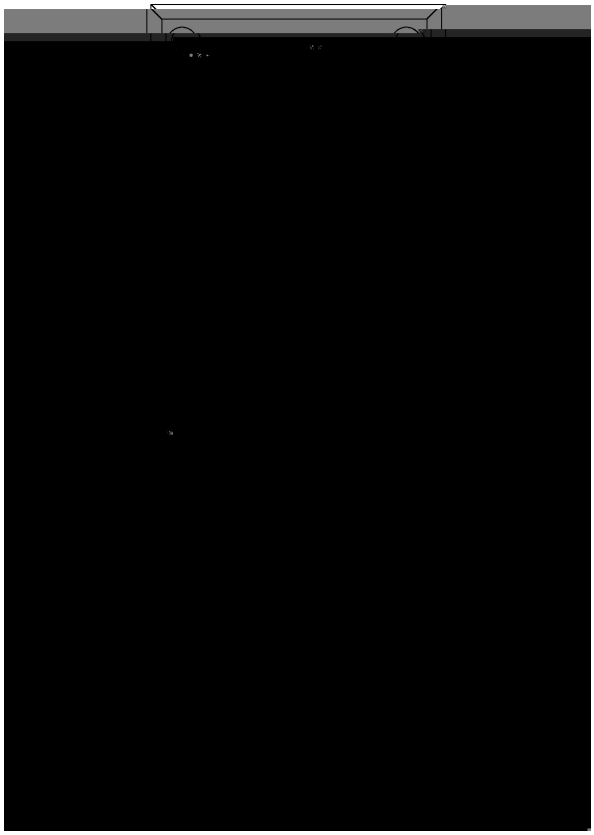
Area



/ Package Dimensions



/ Marking Instructions



BR

70R600C

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Note:

BR:	Company Code
70R600C:	Product Type Code
****:	Lot No. Code, code change with Lot No