BRFL70R360C

Rev.A Oct.-2023

DATA SHEET

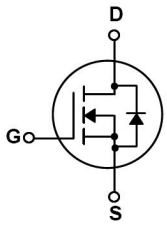
TO-220FL N 700V

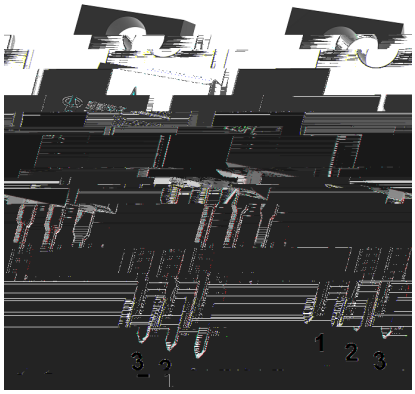
N-CHANNEL 700V Super-Junction Power MOSFET in a TO-220FL Plastic Package.

$R_{DS(on)}$×Qg 100% ROHS

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

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





PIN1 G PIN 2 D PIN 3 S

ł¸ ʜ ɔ̇ / Marking

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ώ ᴇ̈ ᴇ ᴇ̃Ạ / Absolute Maximum Ratings(Ta=25 ɹ)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	700	V
Drain Current	I_D(Tc=25)	12	A
Drain Current - Pulsed	I_{DM}	44	A
Gate-Source Voltage	V_{GS}	±30	V
Single Pulsed Avalanche Energy	E_{AS}	277	mJ
Avalanche Current	I_{AS}	8	A
Power Dissipation	P_D(Tc=25)	27	W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to 150	
Junction-to-Case	$R_{đJC}$	4.6	/W
Junction-to-Ambient	$R_{đJA}$	65	/W

⸗ ʌ ᴇ ᴇ̃Ạ / Electrical Characteristics(Ta=25 ɹ)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250εA	700	735		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=700V V_{GS}=0V T_J=25			1.0	εA
Gate-Body Leakage Current, Forward	I_{GSS}	V_{GS}=±30V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250εA	2.5	3.3	4.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=6A		300	360	mq
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_{SD}=12A T_J=25			1.2	V
Gate Resistance	R_g	V_{GS} = 0V f = 1.0MHz		4.1		q
Input Capacitance	C_{iss}	V_{DS}=100V V_{GS}=0V f=1.0MHz		735		pF
Output Capacitance	C_{oss}			35		pF
Reverse Transfer Capacitance	C_{rss}			0.45		pF
Turn-On Delay Time	$t_{d(on)}$	V_{DS}=465V I_D=6.0A R_G=25q V_{GS}=10V		16.3		ns
Turn-On Rise Time	t_r			35		ns
Turn-Off Delay Time	$t_{d(off)}$			78		ns
Turn-Off Fall Time	t_f			39.5		ns

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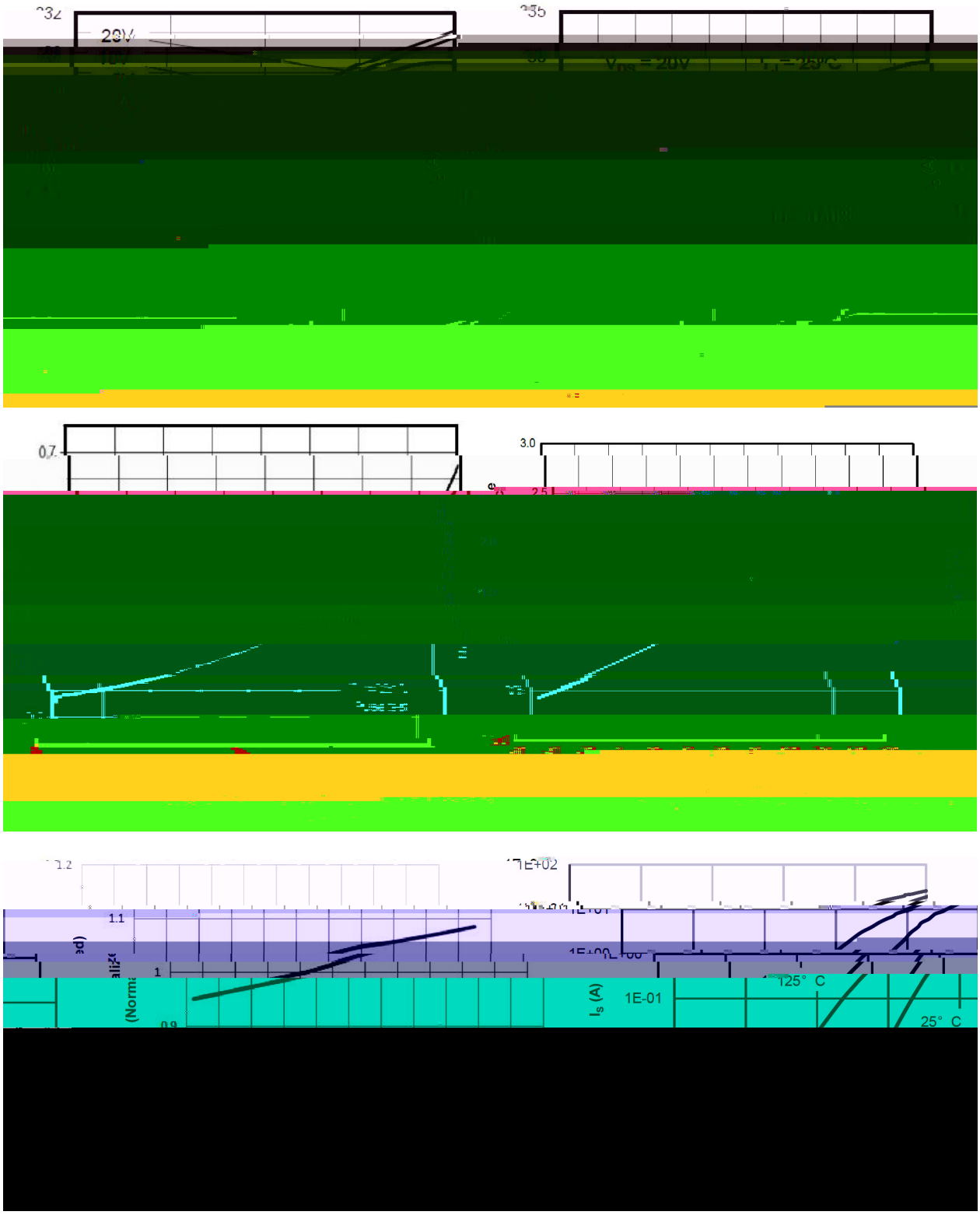
ƒ / Electrical Characteristic Curve



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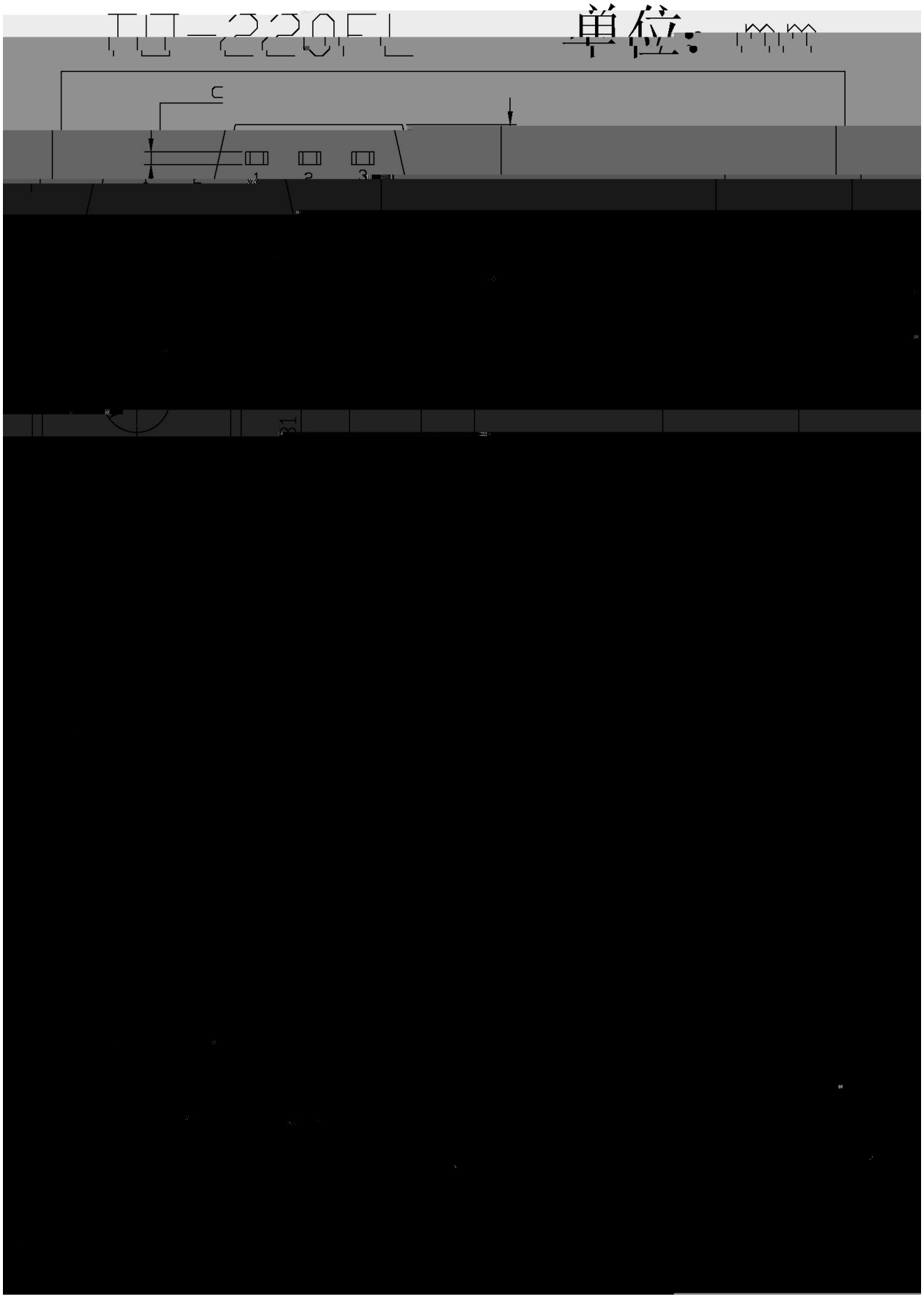
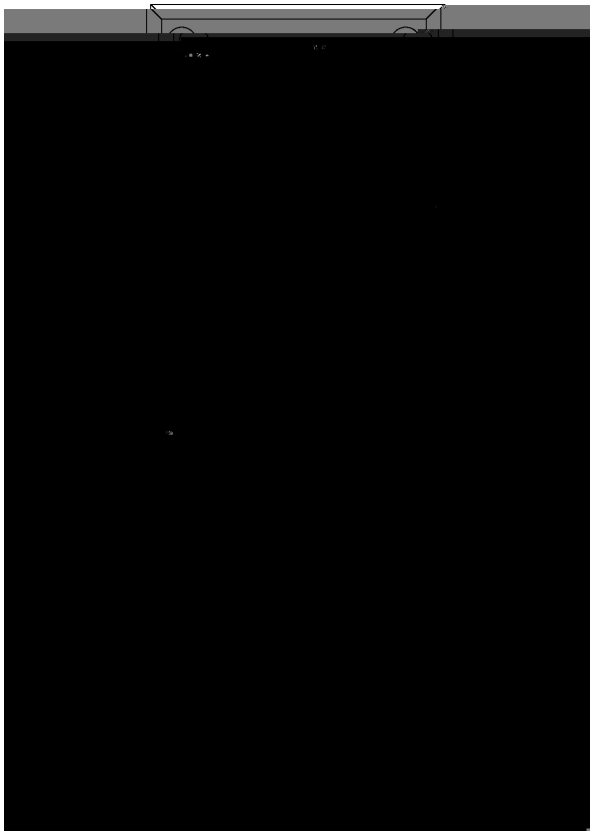
ᵘ ĖÒĻ ʃ / Package Dimensions



Ł. L Ω / Marking Instructions



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70R360C

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Note:

BR:	Company Code
70R360C:	Product Type Code
****:	Lot No. Code, code change with Lot No

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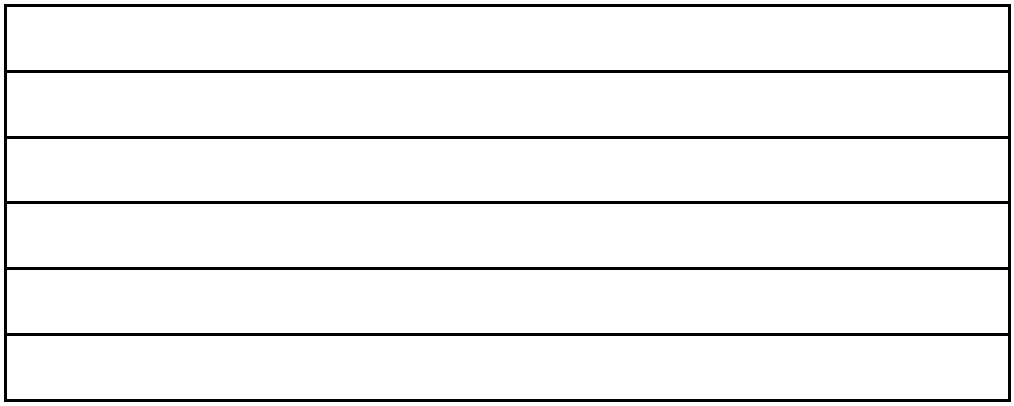

					Note:
1	25	150	60	90sec;	1.Preheating:25~150 , Time:60~90sec.
2	255±5			5±0.5sec;	2.Peak Temp.:255±5 , Duration:5±0.5sec.
3		2	10	/sec.	3. Cooling Speed: 2~10 /sec.

⅃ ϋ ɑ ˝ `Y Ţ / Resistance to Soldering Heat Test Conditions

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

ɒ ᴇ ᴄ— / Packaging SPEC.