/ Absolute Maximum Ratings(Ta=25)

v ̈Ω Parameter	ϒ N Symbol	̈Ω Ö Rating	D Ꮋ Unit
Drain-Source Voltage	V_{DS}	700	V
Gate-Source Voltage	V_{GS}	±30	V
Drain Current	I_D(T_c=25)	4.0	A
Drain Current	I_D(T_c=100)	2.5	A
Drain Current - Pulsed	I_{DM}	16	A
Single Pulsed Avalanche Energy	E_{AS}	260	mJ
Power Dissipation	P_{tot}	36	W
Junction Temperature Range	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	
Junction-to-Case	$R_{\theta JC}$	3.47	/W
Junction-to-Ambient	$R_{\theta JA}$	62.5	/W

/ Electrical Characteristics(Ta=25)

v ̈Ω Parameter	ϒ N Symbol	⅄ ː ⍑ ϯ Test Conditions	ѡ ṇ Ö Min	Ɛ ȝ Ö Typ	ѡ ᶻ Ö Max	D Ꮋ Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250μA	700			V
Breakdown Voltage Temperature Coefficient	Δ_{BVDSS} /ΔT_j	I_D=250uA Referenced to25		0.65		V/
Gate Threshold Voltage	$V_{GS(th)}$	V_{GS}=V_{DS} I_D=250μA	2.0		4.0	V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=700V V_{GS}=0V T_j=25			1	μA
		V_{DS}=560V V_{GS}=0V T_j=125			10	μA
Forward Transconductance	g_{FS}	V_{DS}=40V I_D=2.0A		4.0		S
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±30V			±100	nA
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=2.0A		1.93	2.2	Ω
Input Capacitance	C_{iss}	V_{GS} =0V V_{DS}=25V V_F=1.0MHZ		520		pF
Turn-Off Delay Time	$t_{d(off)}$	V_{DD}=350V I_D=4.0A R_G=25Ω		25		ns

/ Electrical Characteristics(Ta=25)

v ¨Q Parameter	ϒ N Symbol	╝ :╡ ϯ Test Conditions	ѡ ɳ Ө Min	Ɛ ȝ Ө Typ	ѡ ᶻ Ө Max	ᴅ Ꮒ Unit
Total Gate Charge	Q_g	I_D=4.0A V_{DS}=560V V_{GS}=10V		17.4		nC
Gate-to-Source Charge	Q_{gs}			4.8		nC
Gate-to-Drain Charge	Q_{gd}			5.4		nC
Continuous Diode Forward Current	I_S				4.0	A
Diode Forward Voltage	V_{SD}	I_s=4.0A V_{GS}=0V $T_{j=}$25			1.4	V
Reverse Recovery Time	t_{rr}	I_f=4.0A T_j=25 di/dt=100A/μs		250		nS
Reverse Recovery Charge	Q_{rr}			1.5		uC

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Repetitive rating: Pulse width limited by maximum junction temperature

· χ. Ḋ ┘ □ @58 ɬ /Y_{GG}@83Y/0@63 p K/U ᴊ @58Ғ/L_{DV}@7⁞3D

Starting T_j=25 ɬ ,VDD=50V,L=30mH,RG=25Ω,I_{AS}=4.0A

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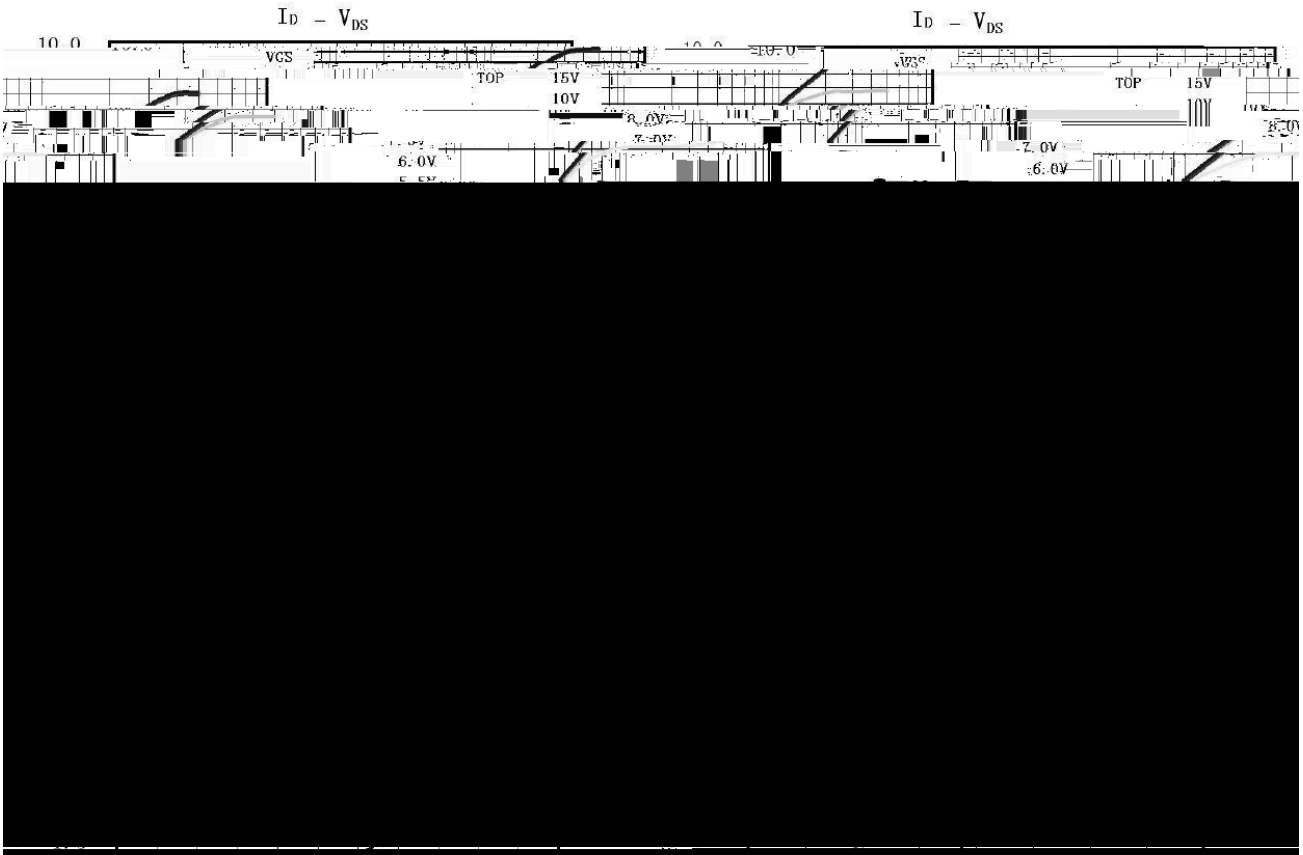
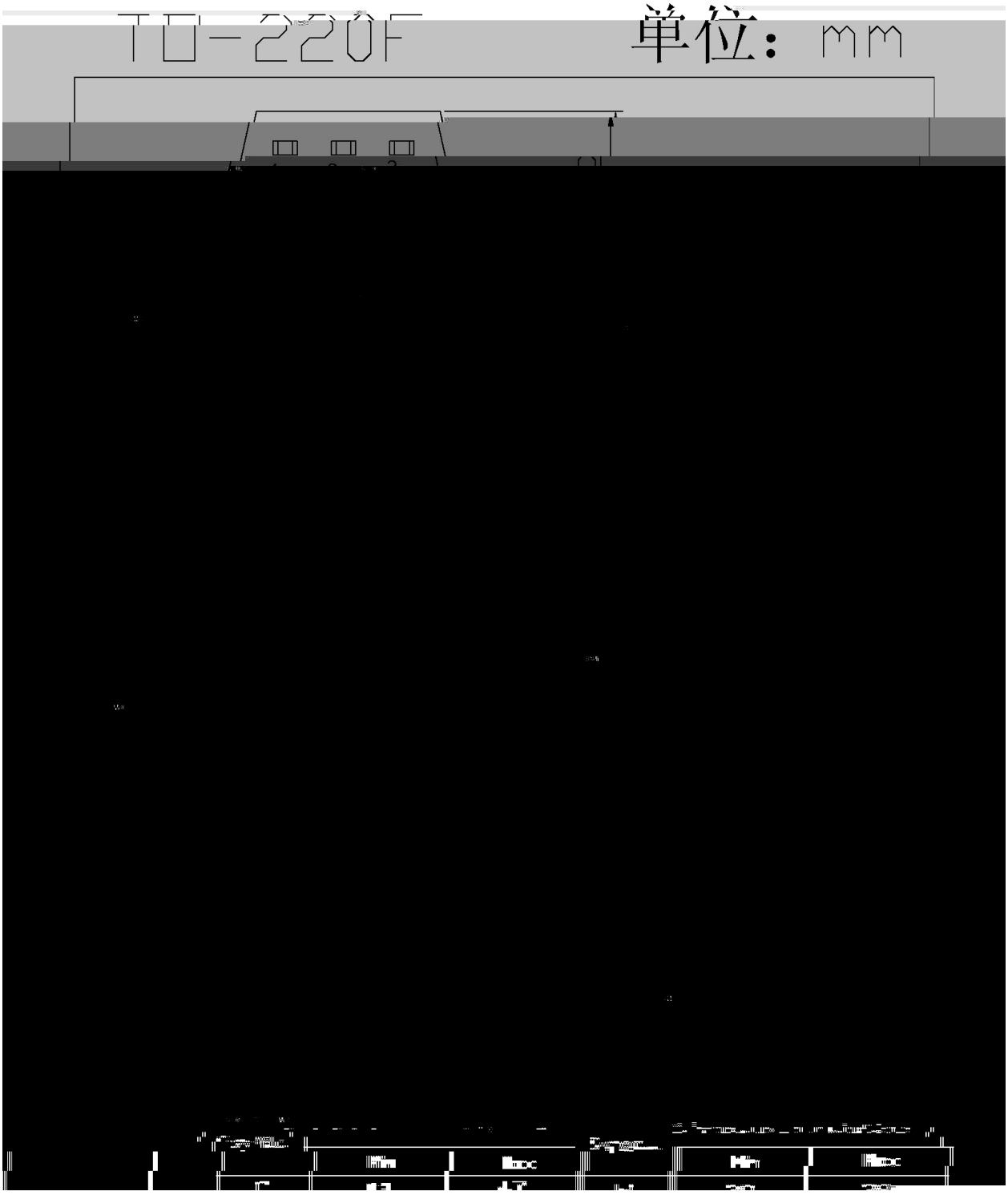
Pulse Test:Pulse width≤300μs,Duty cycle≤ 2%

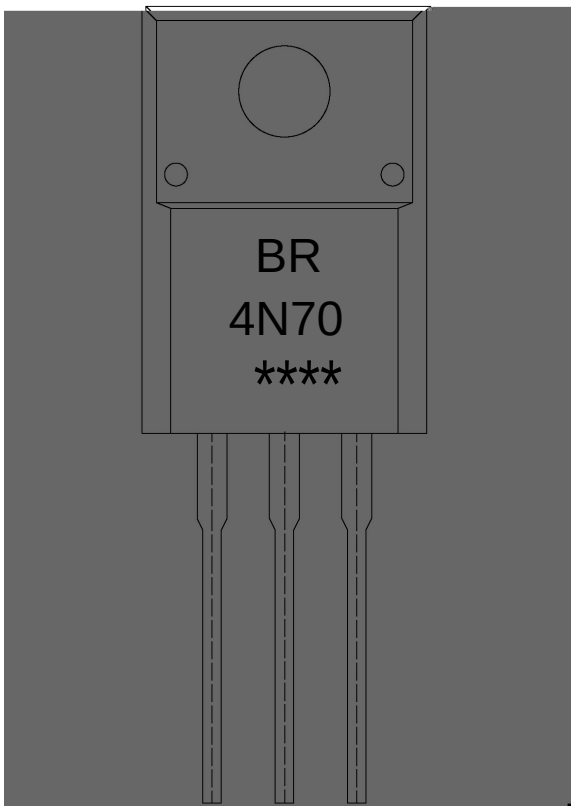
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



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BR χ	ᵻᵿ ϛ ᴺ ᒣ
4N70 χ	ᵻᵿ ȝ ᴺ ᒣ
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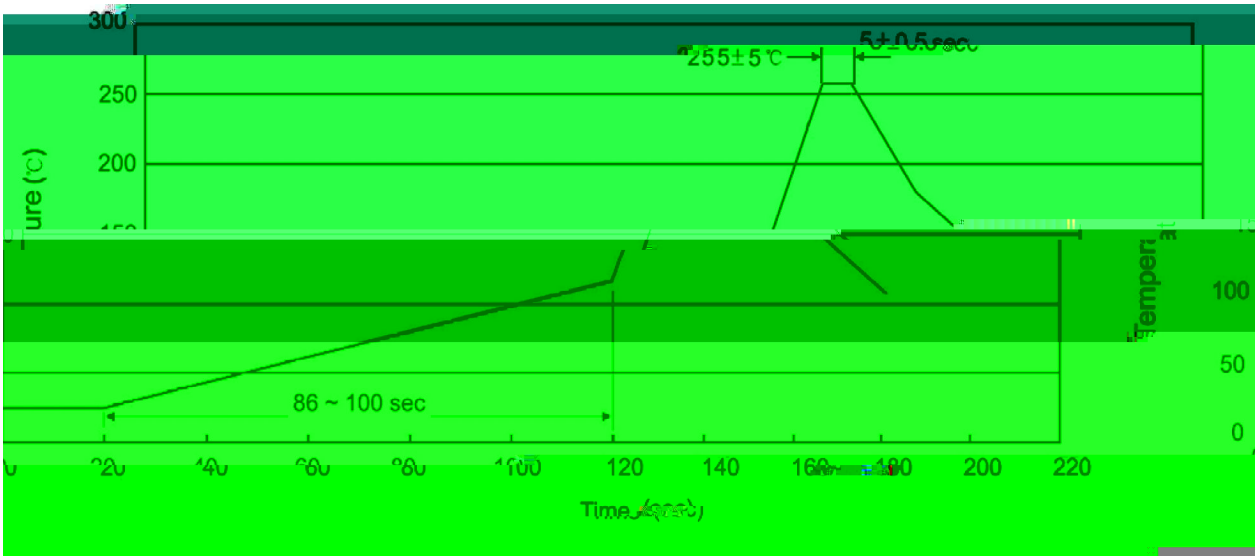
Note:

BR:	Company Code
4N70:	Product Type.
****:	Lot No. Code, code change with Lot No.

( ) / Temperature Profile for Dip Soldering(Pb-Free)



ب ˝ χ

1 Ĺ ♬ □ ỷ 25 Ḱ 150 ł ı ˋH ڑ 60 Ḱ 90sec;

2 Š Ө □ ỷ 255 ° 5 ł ı ˋH ڑ ˋY ﾊ ㎞ 5 ° 0.5sec;

3 ì ˙ ﾘ ˛ ɔ ଌ ỷ ㎞ 2 Ḱ 10 ł /sec.

Note:

1.Preheating:25~150 ł , Time:60~90sec.

2.Peak Temp.:255 ° 5 ł , Duration:5 ° 0.5sec.

3. Cooling Speed: 2~10 ł /sec.

/ Resistance to Soldering Heat Test Conditions

□ ỷ χ 270 ° 5 ł ˋH ڑ χ 10 ° 1 sec. Temp.:270±5 Time:10±1 sec

/ Packaging SPEC.

ˈQ ţ ﾘ Ł / BULK

Package Type	Units					Dimension		(unit mm³)
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box