"Yـ / Descriptions

TO-220FL N MOS N-CHANNEL MOSFET in a TO-220FL Plastic Package.

◕ È / Features

, , ,

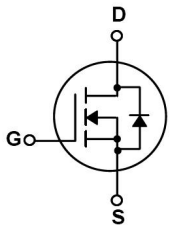
Low gate charge, Low Crss , Fast switching, HF Product.

ᵛ ᵨ / Applications

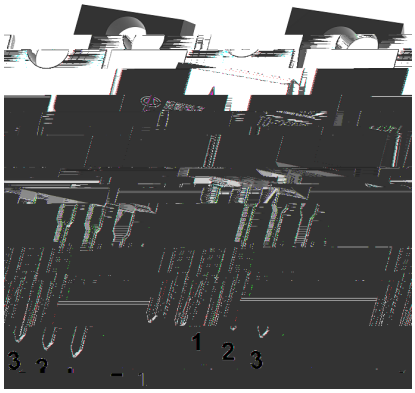
, ,UPS

High efficiency switch mode power supplies, Electronic lamp ballasts based on half bridge, UPS.

Л ف ٚ ٰ ٪ ع / Equivalent Circuit



ã ﻥ ٗ / Pinning



PIN1 G PIN 2 D PIN 3 S

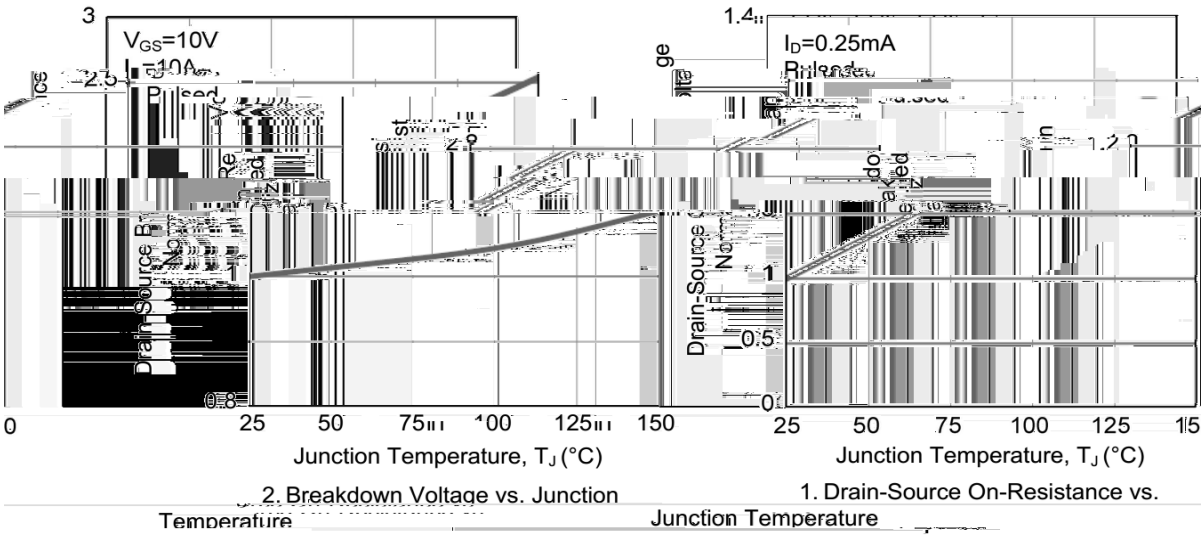
ł. ʜ ڸ / Marking

See Marking Instructions.

≠ ∧ Ǝ Ạ / Electrical Characteristics(Ta=25 ⅃)

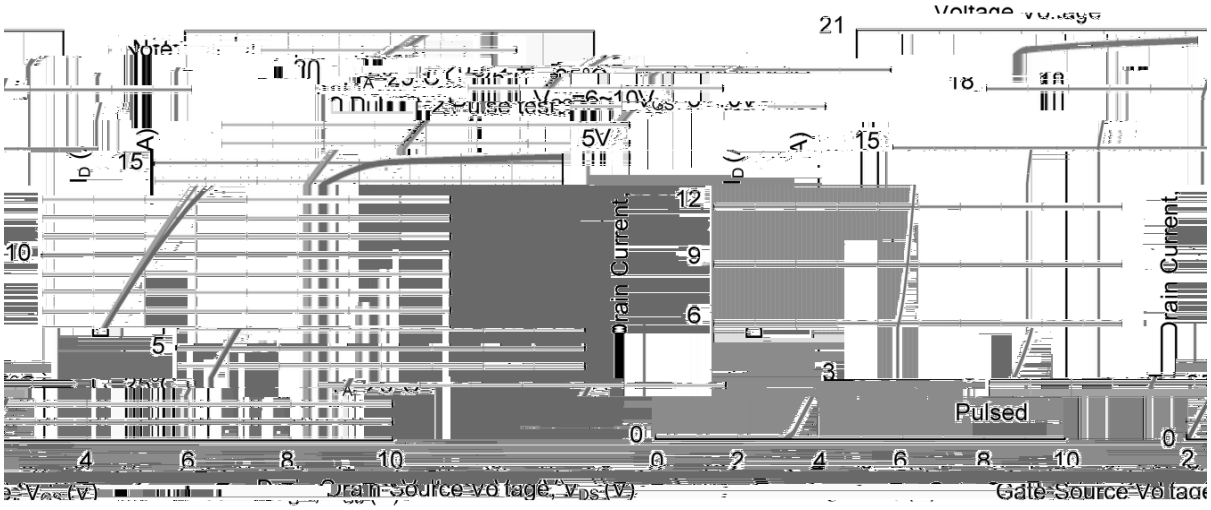
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	V_{DD}=100V I_D=20A V_{GS}=10V R_G=25Ω		28		ns
Turn-On Rise Time	t_r			35		
Turn-Off Delay Time	$t_{d(off)}$			135		
Turn-Off Fall Time	t_f			73		
Maximum Continuous Drain-Source Diode Forward Current	I_S				20	A
Maximum Pulsed Drain-Source Diode Forward Current	I_{SM}				40	A
Reverse Recovery Time	t_{rr}	V_{GS} = 0V I_S = 20A dI_F/dt = 100 A/μs		482		ns
Reverse Recovery Charge	Q_{rr}			8.5		μC

≠ Ǝ Ą ´E ∨ ƒ / Electrical Characteristic Curve



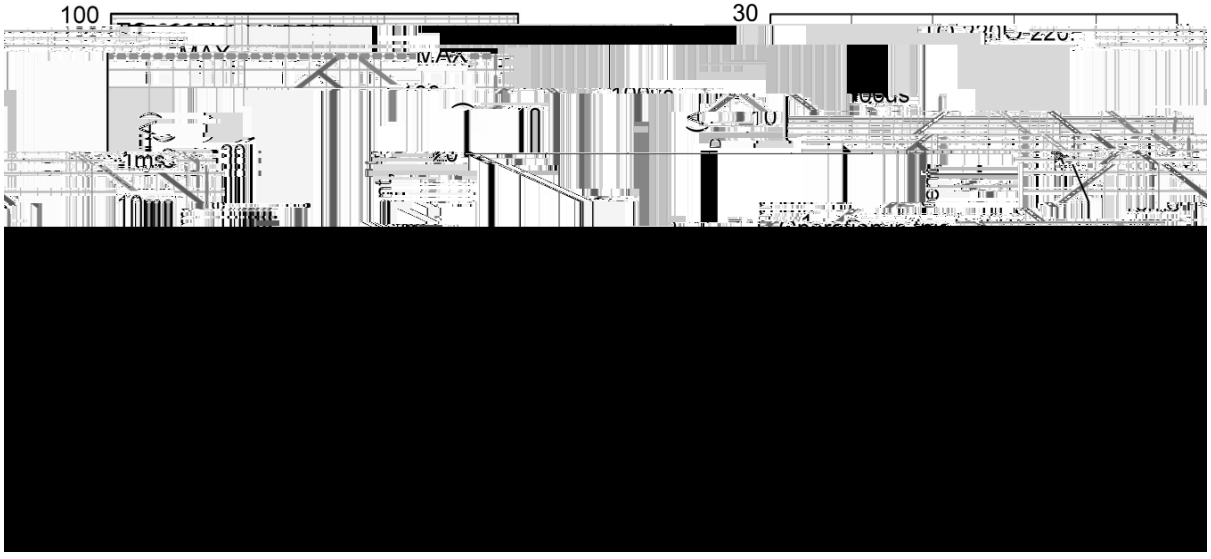
2. Breakdown Voltage vs. Junction Temperature

1. Drain-Source On-Resistance vs. Junction Temperature

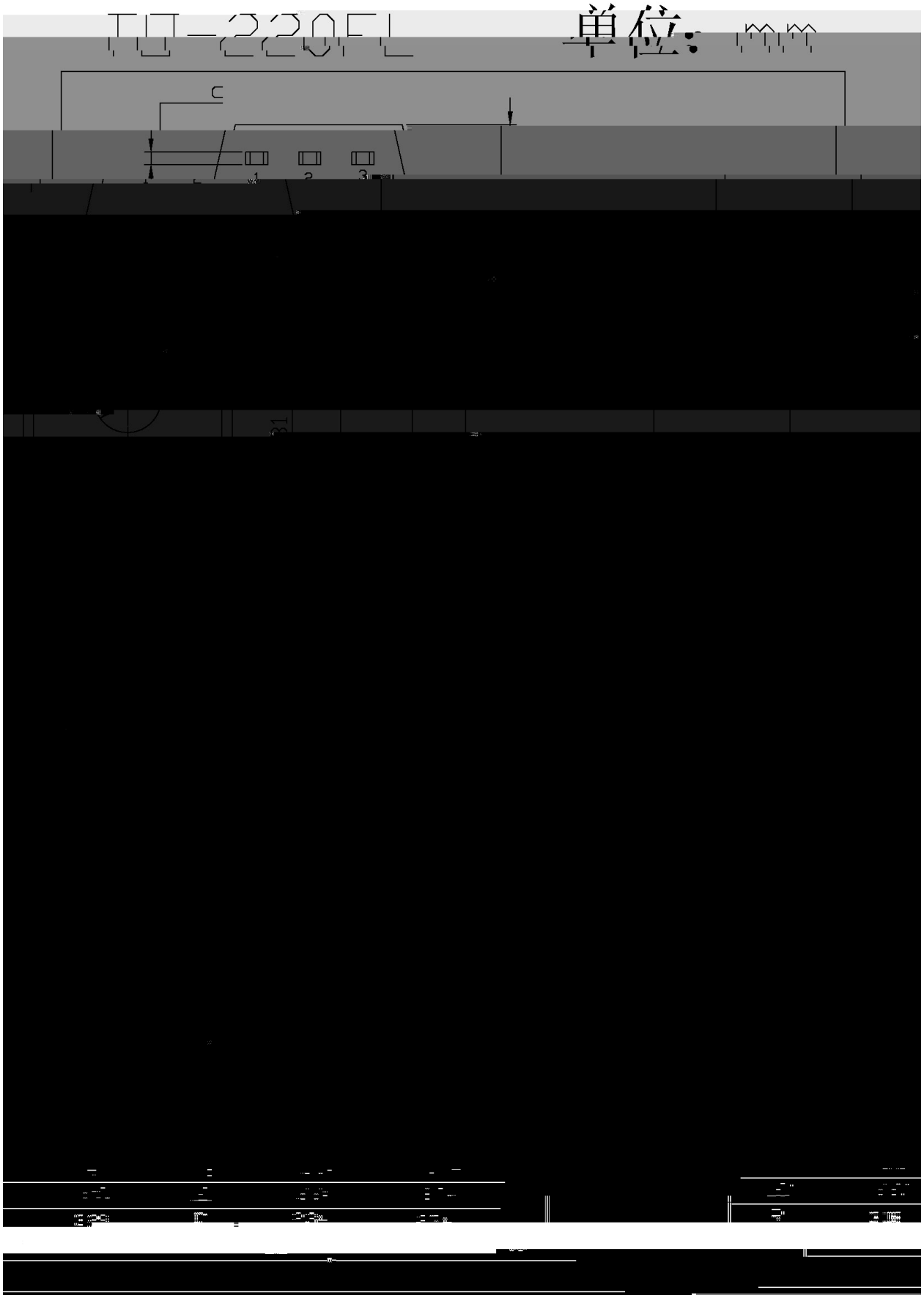


4. Drain Current vs. Gate-Source Voltage

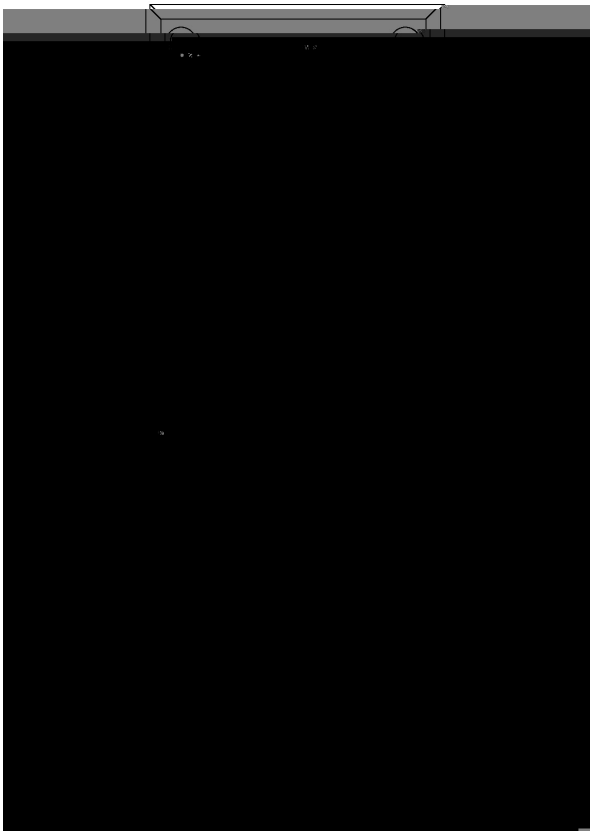
3. Drain Current vs. Drain-Source Voltage



ᵘ ĖÒĻ ʃ / Package Dimensions



Ł. Ł Ω / Marking Instructions



BR

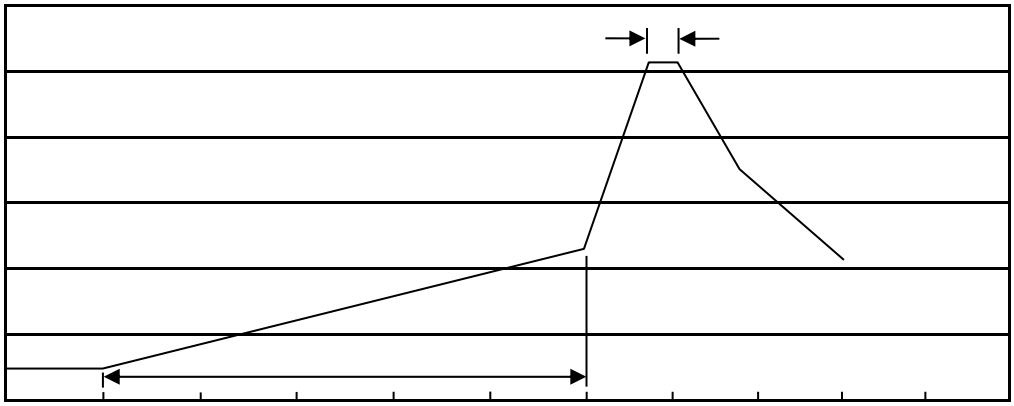
20N70

****

Note:

BR:	Company Code
20N70:	Product Type Code
****:	Lot No. Code, code change with Lot No

↓ ș ╕ẘ´E ᛋ ƒ (ᾠƶ) / Temperature Profile for Dip Soldering(Pb-Free)



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.

ᛋ ŭ ɋ ˉ`Y Ţ / Resistance to Soldering Heat Test Conditions

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

ɒ Ŀ ᴄ— / Packaging SPEC.

/ TUBE

Package Type	Units					Dimension (unit mm³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220FL	50	20	1,000	5	5,000	532×33×7.0	555×164×50	575×290×180

ä ᴠ ŗ Ꞙ / Notices