

描述 / Descriptions

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

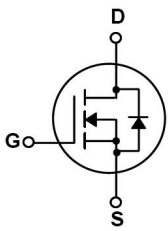
特点 / Features

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

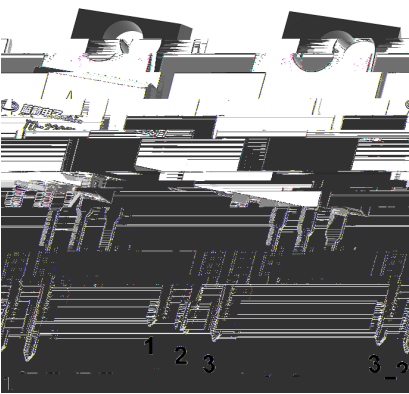
应用 / Applications

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

等效电路 / Equivalent Circuit



引脚 / Pinning



PIN1 G PIN 2 D PIN 3 S

标识 / Marking

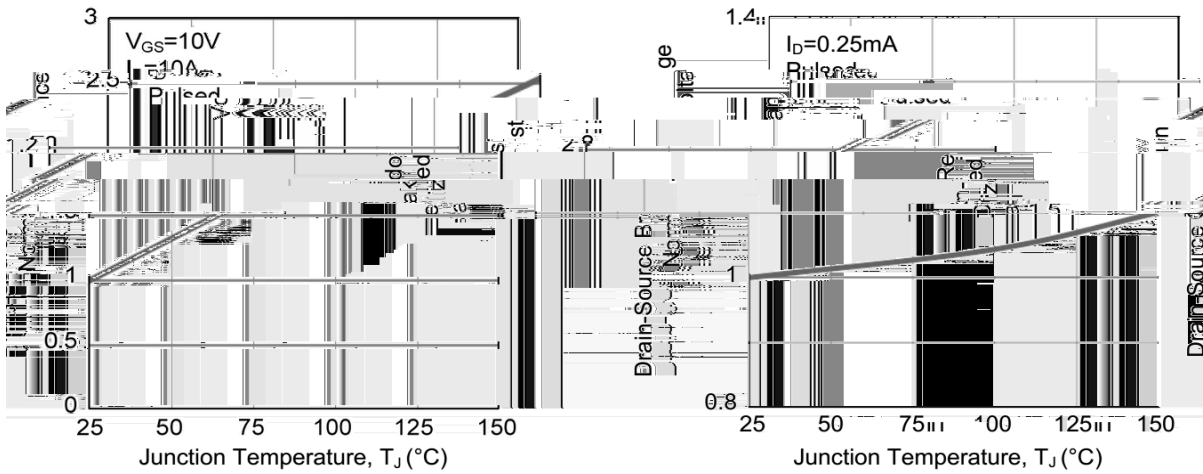
See Marking Instructions.



Electrical Characteristics(Ta=25 ℃)

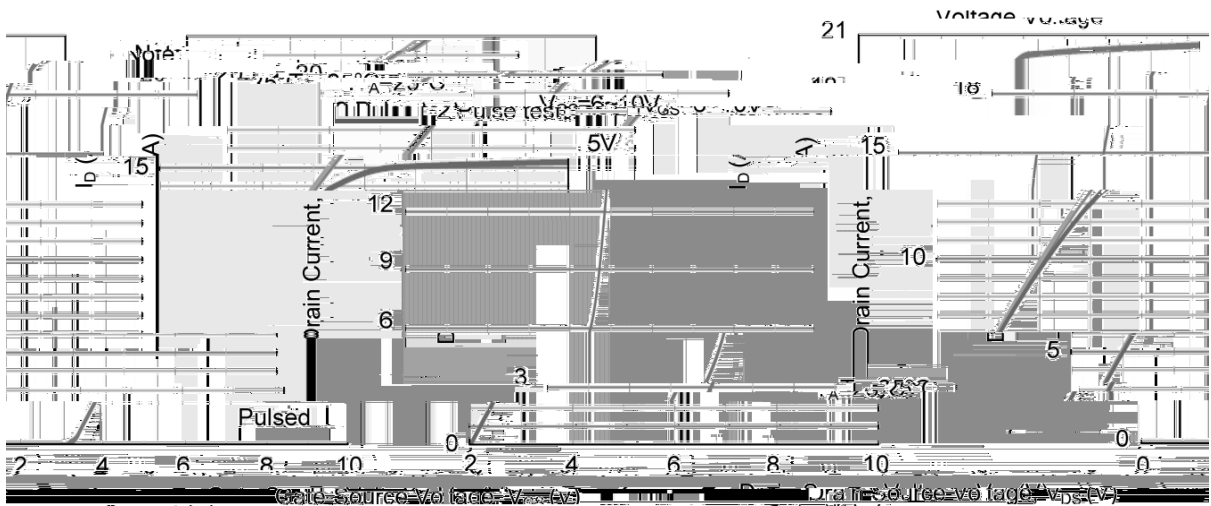
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=100V$ $I_D=20A$ $V_{GS}=10V$ $R_G=25\Omega$		28		ns
Turn-On Rise Time	t_r			35		
Turn-Off Delay Time	$t_{d(off)}$			135		
Turn-Off Fall Time	t_f			73		
Maximum Continuous Drain-Source Diode Forward Current	I_S		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

Electrical Characteristic Curve



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

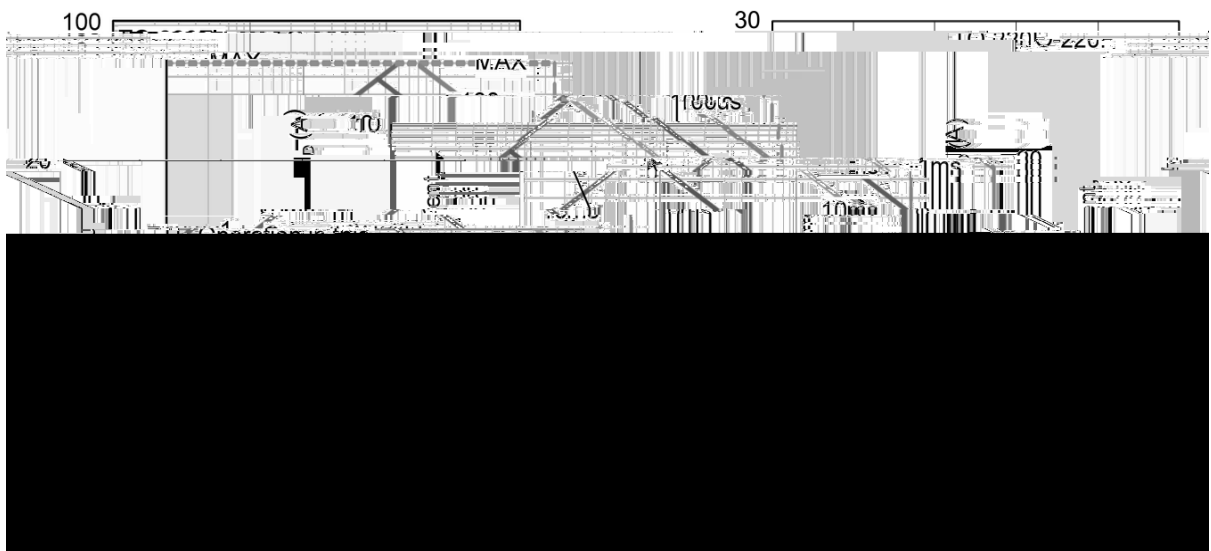
2. Breakdown Voltage vs. Junction Temperature



3. Drain Current vs. Drain-Source Voltage

4. Drain Current vs. Gate-Source Voltage

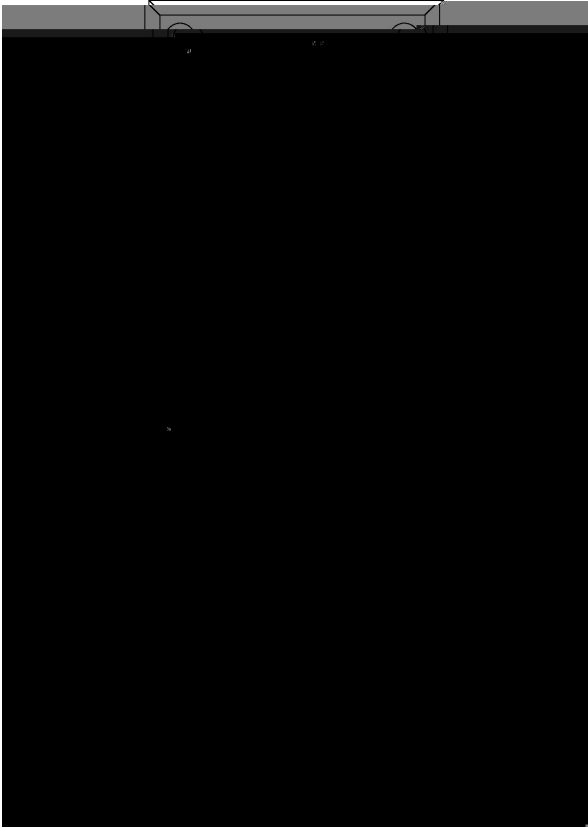
3. Drain Current vs. Drain-Source Voltage



⌘ É Ò Ì ð / Package Dimensions



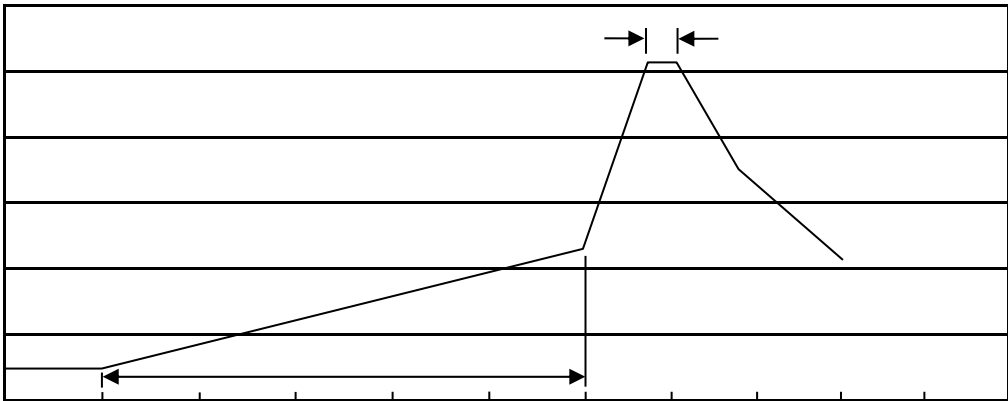
1. 1.1 / Marking Instructions



BR
20N70

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

↓ \$ ¶ ŵ'E ¶ f(ŵ'ŝ) / Temperature Profile for Dip Soldering(Pb-Free)



- 1

25 150

60 90sec;
- 2

255±5

5±0.5sec;
- 3

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

↓ ŵ ¶ ŵ'Y ¶ / Resistance to Soldering Heat Test Conditions

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

¶ E ŵ— / Packaging SPEC.

/ TUBE

Package Type	Units					Dimension (unit mm³)		
TO-220FL	50	20	1,000	5	5,000	532×33×7.0	555×164×50	575×290×180

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