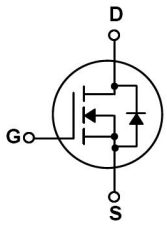
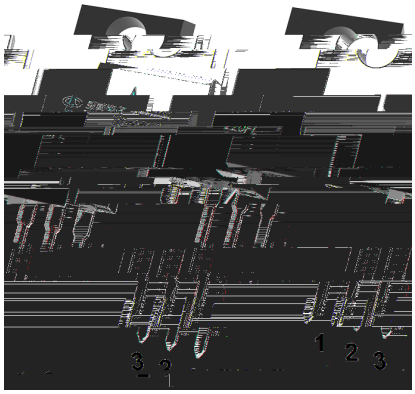
TO-220FL N 700V
N-CHANNEL 700V Super-Junction Power MOSFET in a TO-220FL Plastic Package.

$R_{DS(on)}$×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 ɔ̈ / Marking

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## ώ ̈ Ξ ̃Ą / 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 |

## ≠ ∧ Ξ ̃Ą / Electrical Characteristics(Ta=25 ɹ )

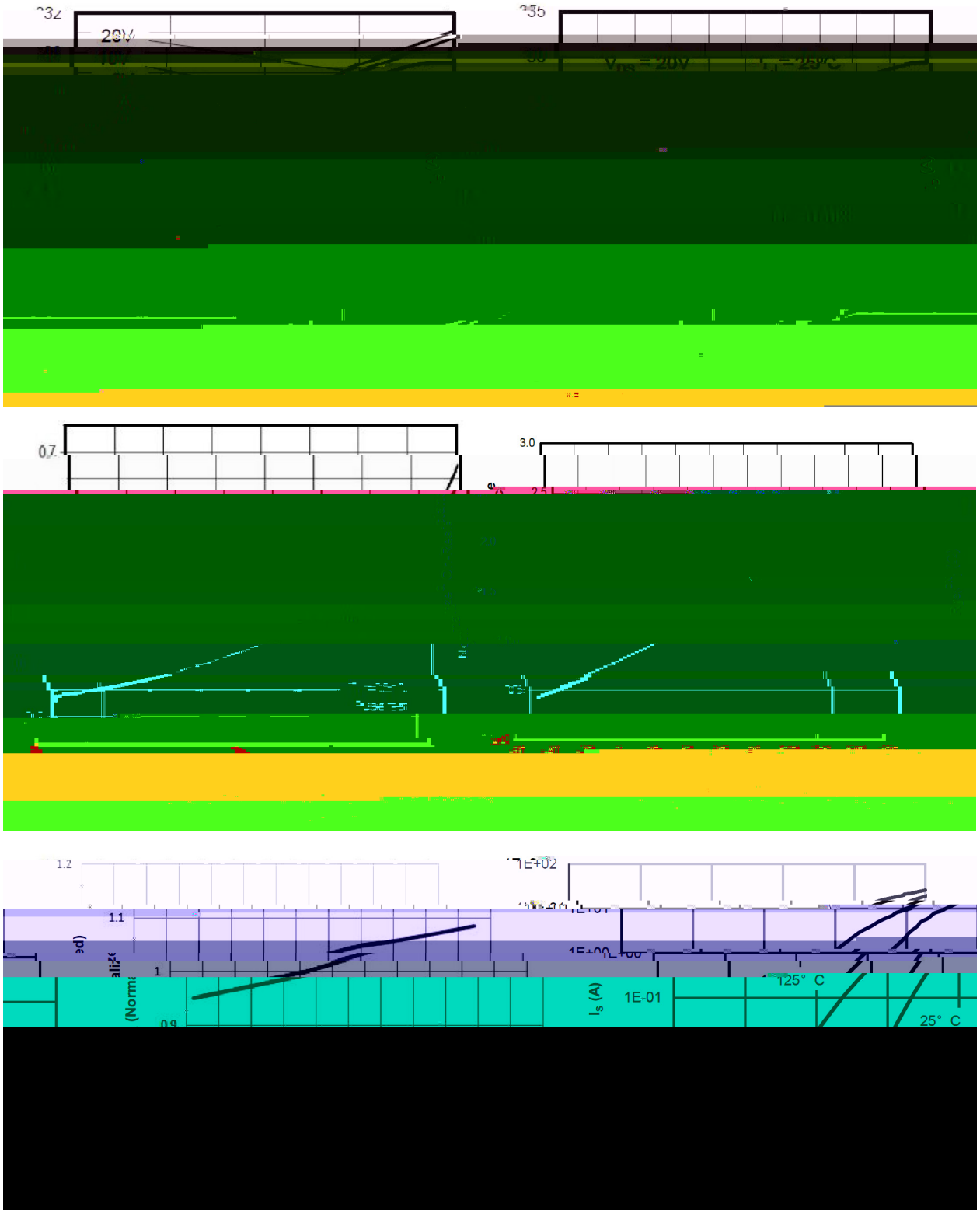
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Drain-Source Breakdown Voltage | $BV_{DSS}$ | $V_{GS}$=0V $I_D$=250εA | 700 | 735 | | V |
| Zero Gate Voltage Drain Current | $I_{DSS}$ | $V_{DS}$=700V $V_{GS}$=0V $T_J$=25 | | | 1.0 | εA |
| Gate-Body Leakage 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 |

# BRFL70R360C

Rev.A Oct.-2023

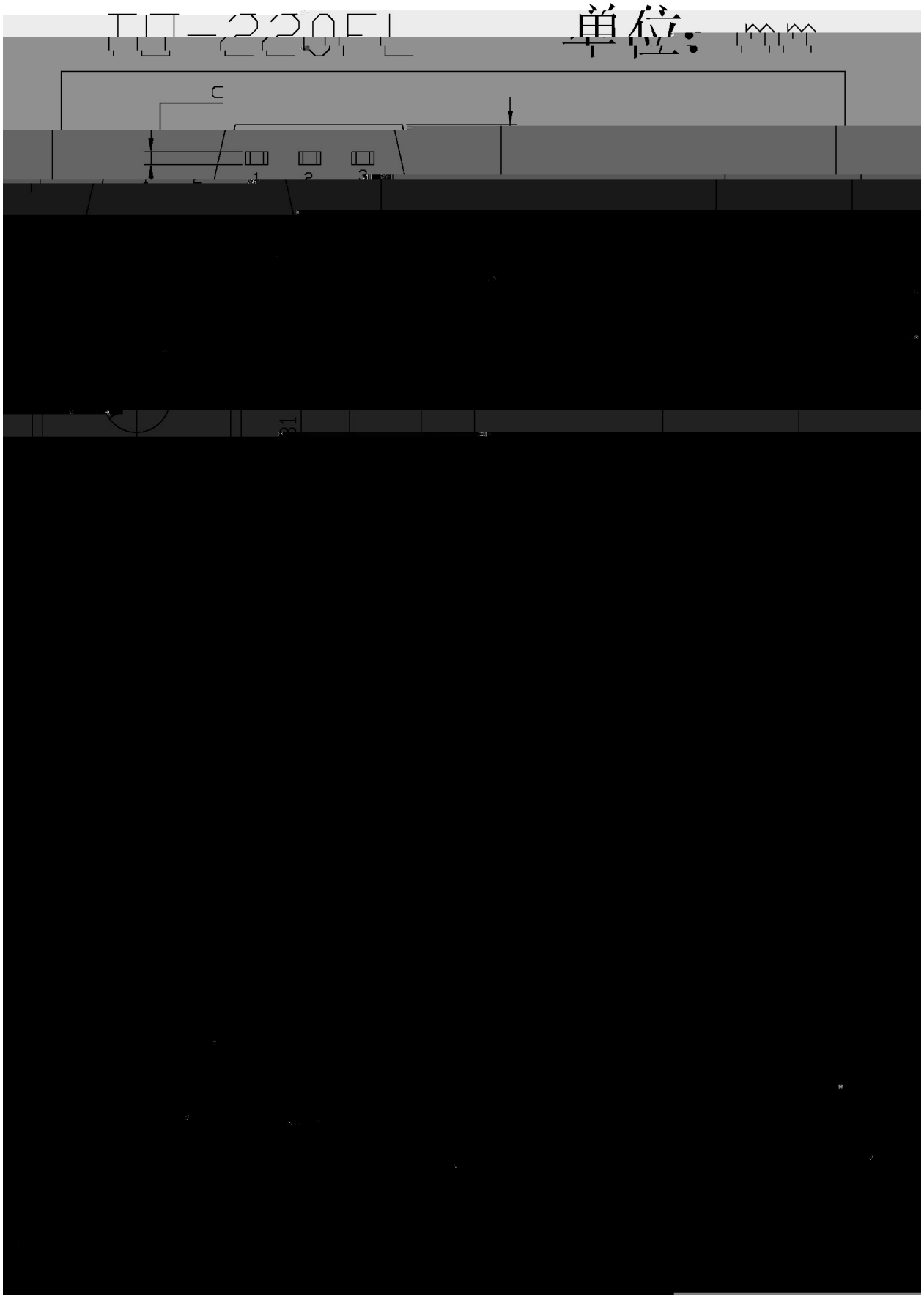
**DATA SHEET**

## ≠ Ǝ ÃʹE ᛋ ƒ / Electrical Characteristic Curve

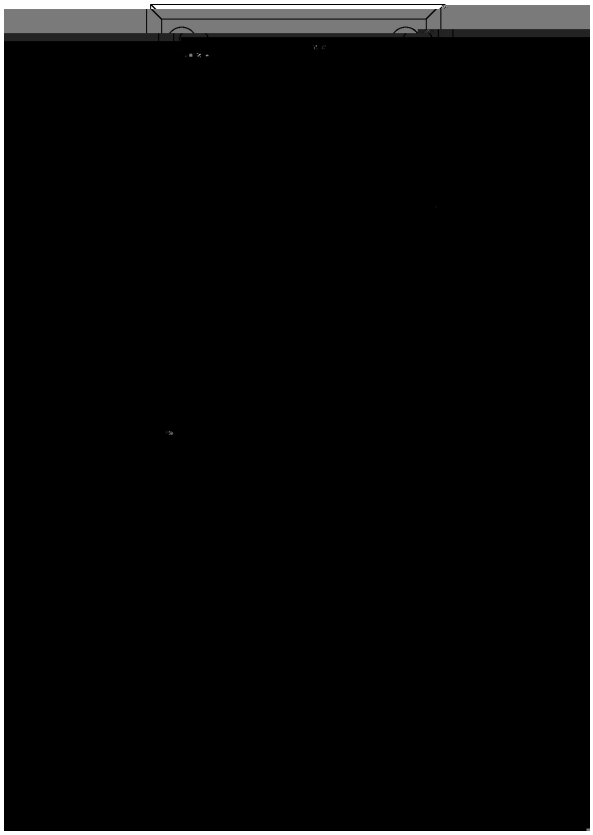


**BRFL70R360C**

## ᵘ ĖÒĻ ʃ / Package Dimensions



## Ł. Ł'Ω / Marking Instructions



BR

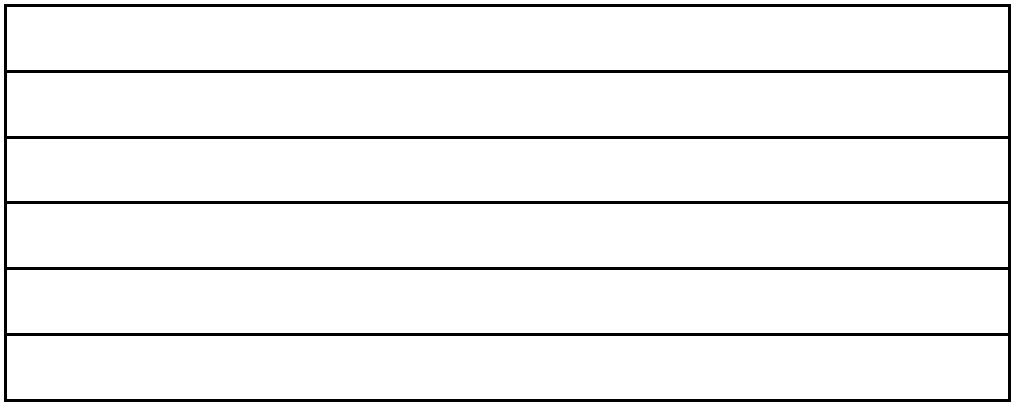
70R360C

****

Note:

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

## ↓ ș ╕ẘ´E ᛋ ʃ (ᾠ ᴈ) / 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.

## ᆡ 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 ᵭ— / Packaging SPEC.