



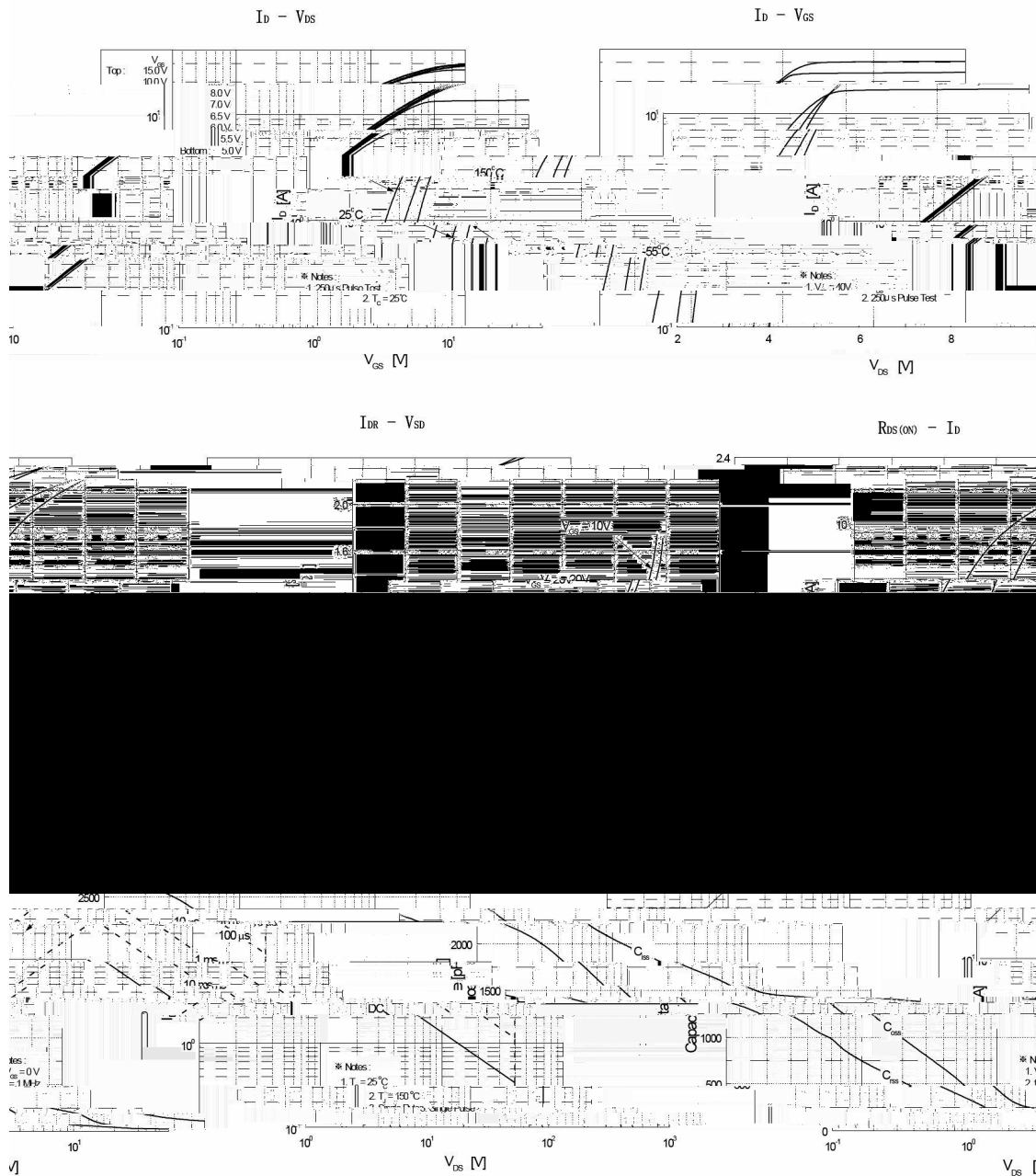
**/ Absolute Maximum Ratings(Ta=25 )**

| Parameter                               | Symbol         | Rating     | Unit |
|-----------------------------------------|----------------|------------|------|
| Drain-Source Voltage                    | $V_{DS}$       | 400        | V    |
| Drain Current                           | $I_D(T_C=25)$  | 10         | A    |
| Drain Current                           | $I_D(T_C=100)$ | 6.3        | A    |
| Drain Current - Pulsed                  | $I_{DM}$       | 40         | A    |
| Gate-Source Voltage                     | $V_{GS}$       | $\pm 30$   | V    |
| Avalanche Current                       | $I_{AR}$       | 10         | A    |
| Single Pulsed Avalanche Energy          | $E_{AS}$       | 450        | mJ   |
| Repetitive Avalanche Energy             | $E_{AR}$       | 13.4       |      |
| Power Dissipation                       | $P_D(T_C=25)$  | 44         |      |
| Operating and Storage Temperature Range | $T_J, T_{STG}$ | -55 to 150 |      |

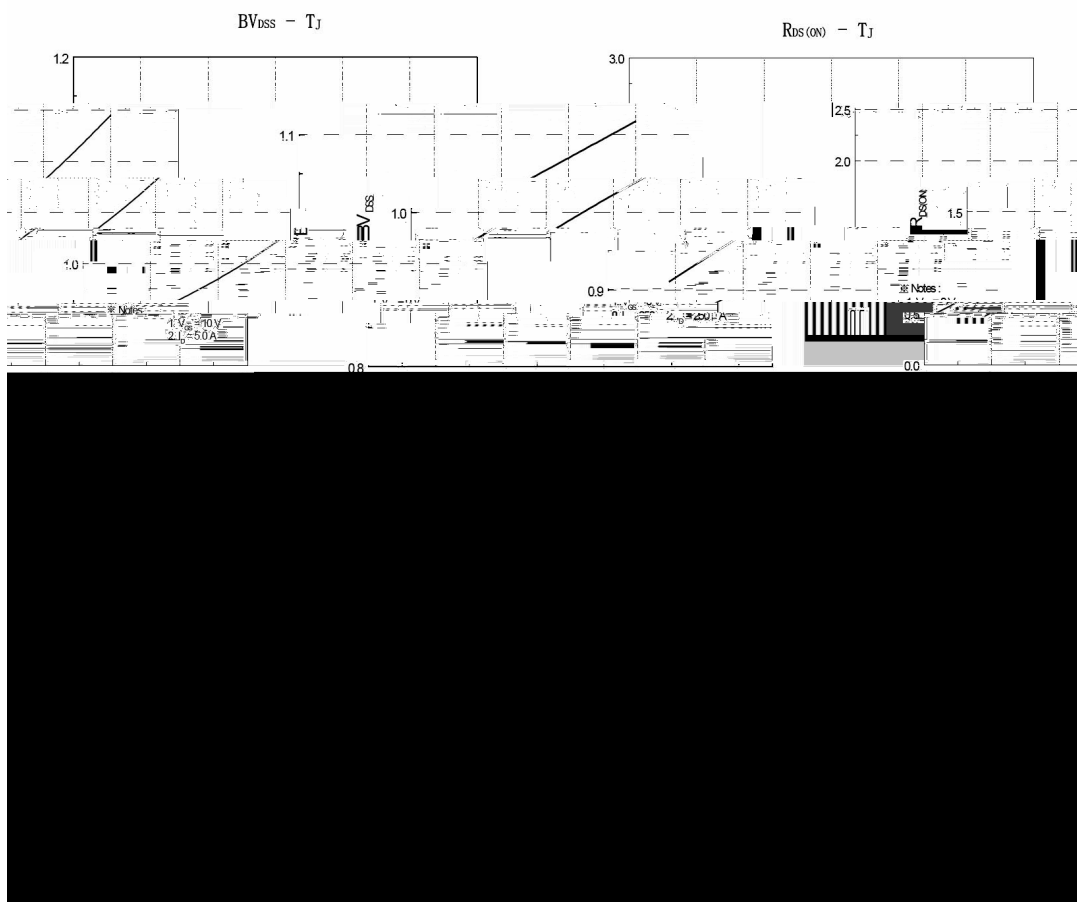
**/ Electrical Characteristics(Ta=25 )**

| Parameter                          | Symbol       | Test Conditions                     | Typ  | Unit     |
|------------------------------------|--------------|-------------------------------------|------|----------|
| Drain-Source Breakdown Voltage     | $BV_{DS}$    | $V_{GS}=0V$ $I_D=250$ A             | 400  | V        |
| Zero Gate Voltage Drain Current    | $I_{DSS}$    | $V_{DS}=400V$ $V_{GS}=0V$           | 1    | A        |
|                                    |              | $V_{DS}=320V$ $T_C=125$             | 1    | A        |
| Gate-Body Leakage Current Forward  | $I_{GSS}$    | $V_{GS}=\pm 30V$ $V_{DS}=0V$        |      | A        |
| Gate Threshold Voltage             | $V_{GS(th)}$ | $V_{DS}=V_{GS}$ $I_D=100$ A         | 1.5  | V        |
| Static Drain-Source On-Resistance  | $R_{DS(on)}$ | $V_{GS}=10V$ $I_D=10$ A             | 0.44 | $\Omega$ |
| Forward Transconductance           | $g_{FS}$     | $V_{DS}=40V$ $I_D=5.0$ A            | 9.0  | S        |
| Drain-Source Diode Forward Voltage | $V_{SD}$     | $V_{GS}=0V$ $I_S=10$ A              |      | V        |
| Input Capacitance                  | $C_{iss}$    | $V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$ | 1570 | pF       |
| Output Capacitance                 | $C_{oss}$    |                                     | 150  | pF       |
| Reverse Transfer Capacitance       | $C_{rss}$    |                                     | 15   | pF       |
| Turn-On Delay Time                 | $t_{d(on)}$  | $V_{DD}=200V$ $R_G=25$              | 25   | ns       |
| Turn-On Rise Time                  | $t_r$        |                                     | 60   | ns       |
| Turn-Off Delay Time                | $t_{d(off)}$ |                                     | 115  | ns       |
| Turn-Off Fall Time                 | $t_f$        |                                     | 70   | ns       |

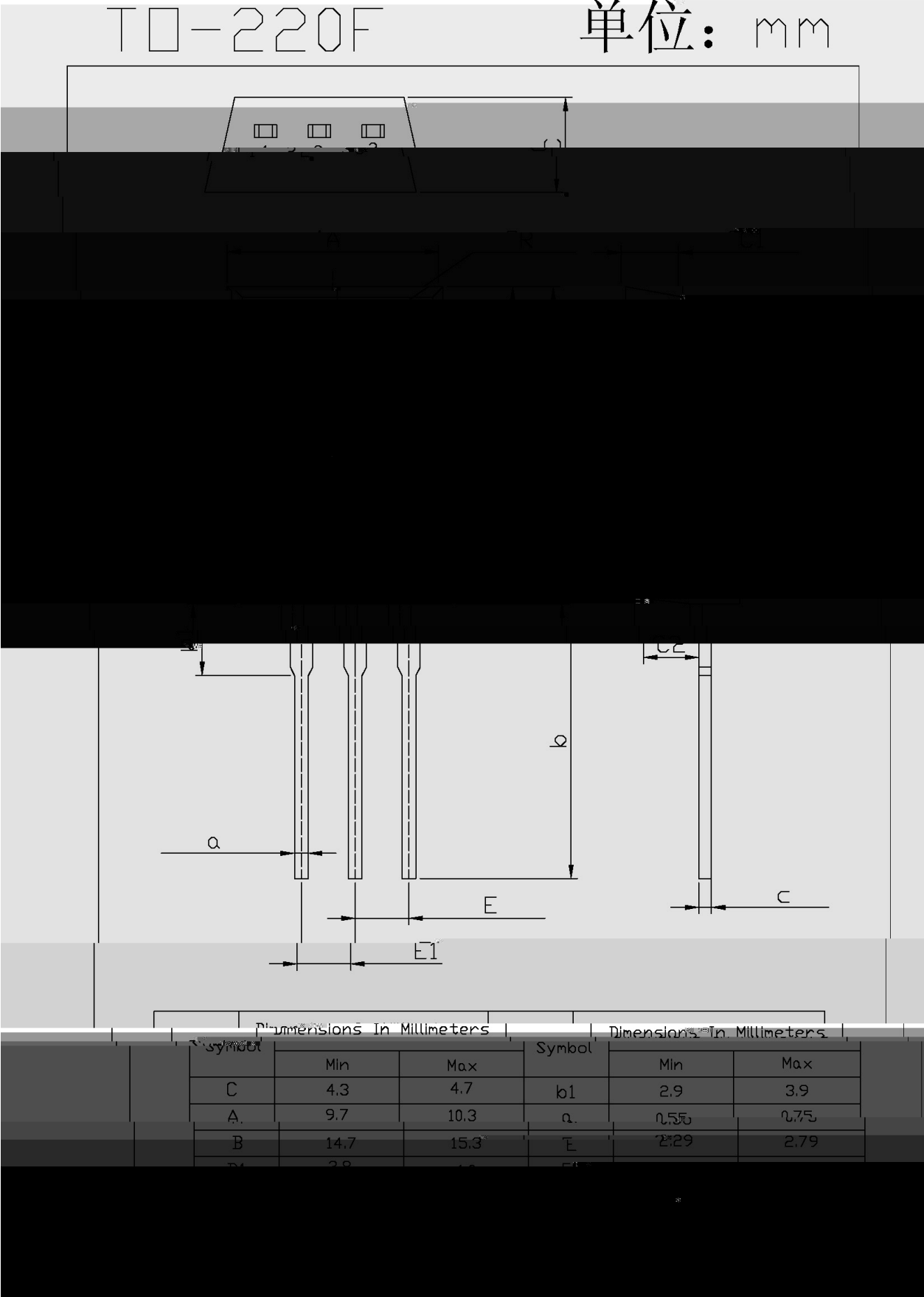
## / Electrical Characteristic Curve



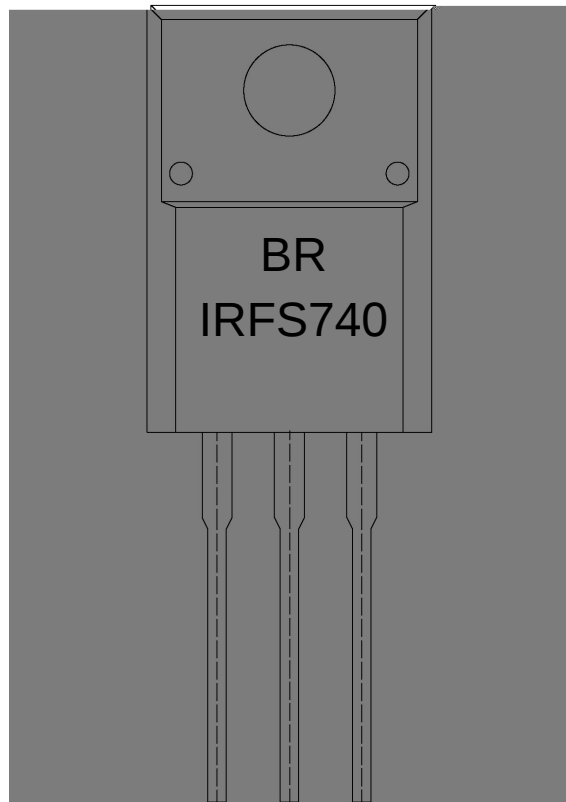
## / Electrical Characteristic Curve



/ Package Dimensions



**/ Marking Instructions**



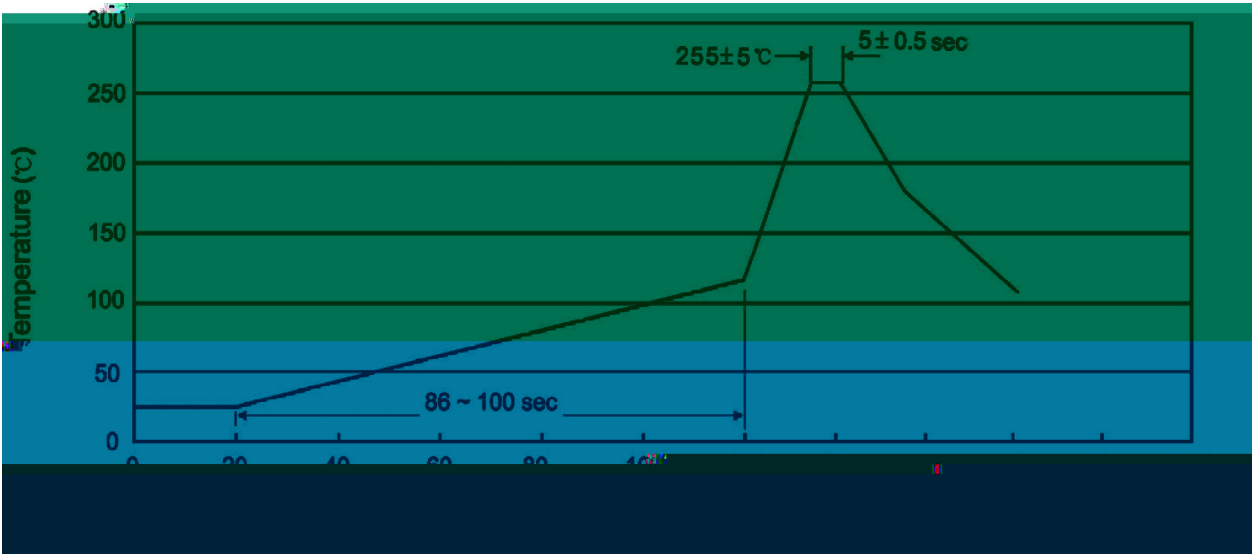
Note:

BR: Company Code

IRFS740: Product Type.

\*\*\*: Lot No. Code, code change with Lot No.

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



Note:

- 1

25 150

60 90sec;
- 2

255 5

5 0.5sec;
- 3

2 10

/sec.
- 1.Preheating:25~150

, Time:60~90sec.
- 2.Peak Temp.:255 5

, Duration:5 0.5sec.
3. Cooling Speed: 2~10

/sec.

/ Resistance to Soldering Heat Test Conditions

270 5

10 1 sec.

Temp.:270±5℃

Time:10±1 sec

/ Packaging SPEC.

/ BULK

| Package Type<br>封装形式 | Units 包装数量 |     |     |     |     | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |   |   |
|----------------------|------------|-----|-----|-----|-----|-----------------------------------------|---|---|
|                      | 只 袋        | 袋 盒 | 只 盒 | 盒 箱 | 只 箱 | 袋                                       | 盒 | 箱 |
|                      |            |     |     |     |     |                                         |   |   |

/ TUBE

| Package Type<br>封装形式 | Units 包装数量 |      |     |     |     | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |   |   |
|----------------------|------------|------|-----|-----|-----|-----------------------------------------|---|---|
|                      | 只 套管       | 套管 盒 | 只 盒 | 盒 箱 | 只 箱 | 套管                                      | 盒 | 箱 |
|                      |            |      |     |     |     |                                         |   |   |

/ Notices