

**/ Descriptions**

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

**/ Features**

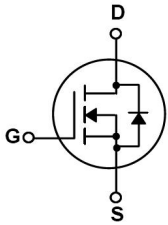
Low gate charge, low crss, fast switching.

**/ Applications**

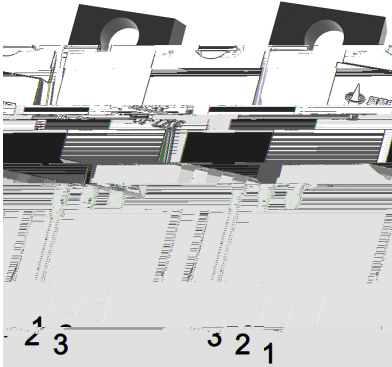
DC/DC

These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

**/ Equivalent Circuit**



**/ Pinning**



PIN1 G      PIN 2 D      PIN 3 S

**/ Marking**

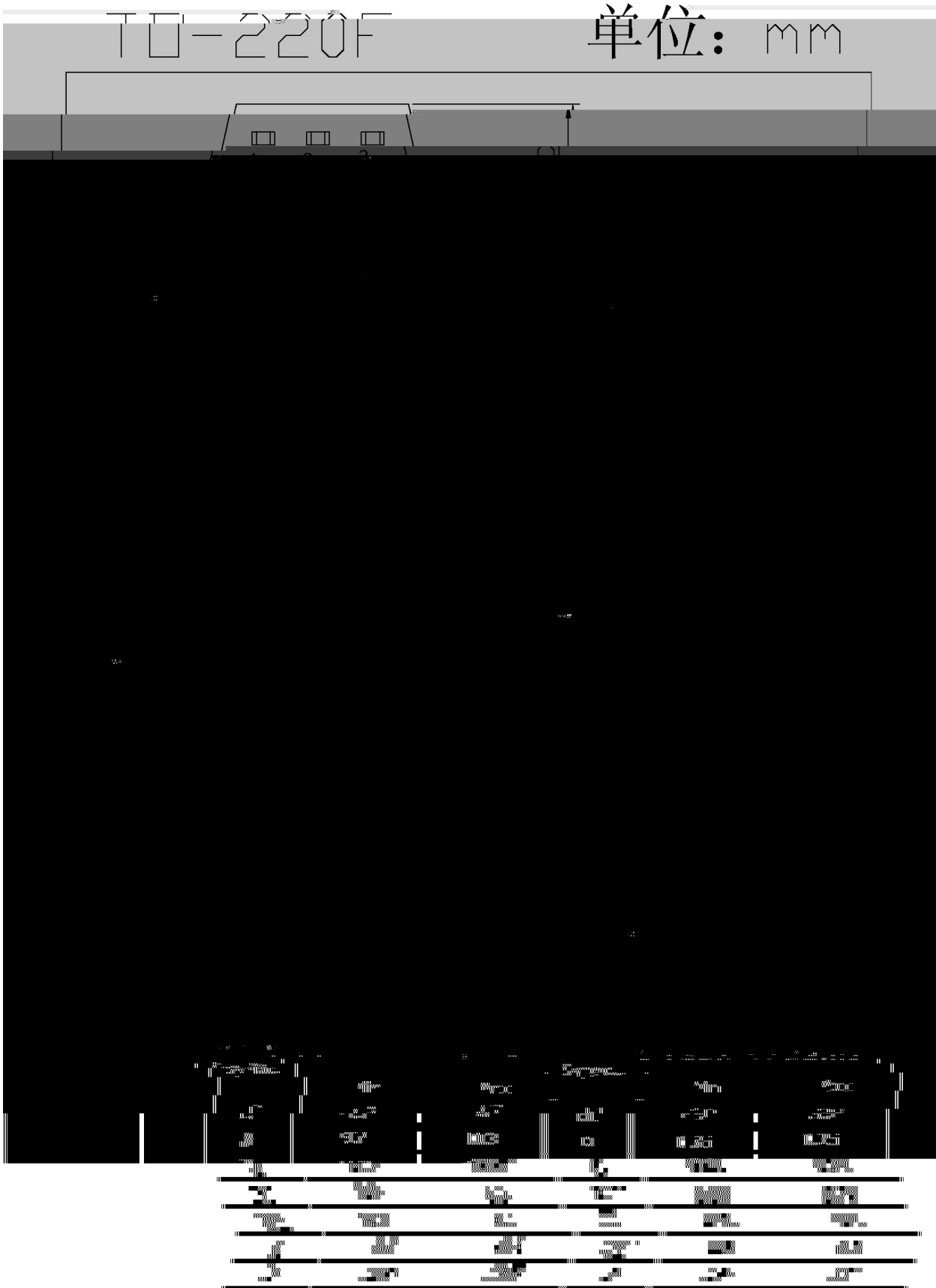
See Marking Instructions.

| Parameter                               | Symbol                 | Rating     | Unit |
|---|------------------------|------------|------|
| Drain-Source Voltage                    | $V_{DSS}$              | 650        | V    |
| Drain Current                           | $I_D(T_C=25^\circ C)$  | 4.0        | A    |
| Drain Current                           | $I_D(T_C=100^\circ C)$ | 2.5        | A    |
| Drain Current - Pulsed                  | $I_{DM}$               | 16         | A    |
| Gate-Source Voltage                     | $V_{GS}$               | $\pm 30$   | V    |
| Single Pulsed Avalanche Energy          | $E_{AS}$               | 240        | mJ   |
| Repetitive Avalanche Energy             | $E_{AR}$               | 10         | mJ   |
| Avalanche Current                       | $I_{AR}$               | 4.0        | A    |
| Power Dissipation                       | $P_D(T_C=25^\circ C)$  | 33         | W    |
| Operating and Storage Temperature Range | $T_J, T_{STG}$         | -55 to 150 |      |

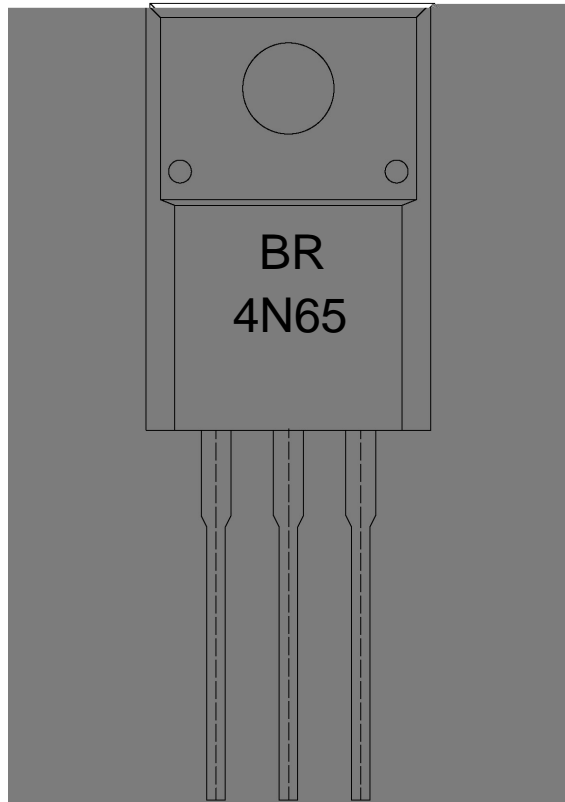
| Parameter                      | Symbol     | Test Conditions       | Min | Typ | Max | Unit |
|--------------------------------|------------|-----------------------|-----|-----|-----|------|
| Drain-Source Breakdown Voltage | $BV_{DSS}$ | $V_{GS}=0V$ $I_D=250$ |     |     |     |      |



/ Package Dimensions



**/ Marking Instructions**



BR

4N65

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Note:

BR: Company Code

4N65: Product Type

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

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



- |   |       |     |           |        |   |                                      |
|---|-------|-----|-----------|--------|---|--------------------------------------|
| 1 | 25    | 150 | 60        | 90sec; | Note:                                   | 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.            |                                      |

**/ Resistance to Soldering Heat Test Conditions**

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

**/ Packaging SPEC.**

/ BULK

Package Type                      Units                      Diment.01603bd712