## 5 é / Desc

TO-263 .> / / x N ?ú 3 « | • ’ož

N-CHANNEL MOSFET in a TO-263 Plastic Package.

## ¤ª / Feat

$V_{DS}$=60V $I_D$=225A

$R_{DS(on)}$@10V ”2.2m (Type. 1.9m )

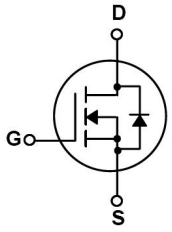
—)í D }ož HF Product.

## Ð ÷ / Appl

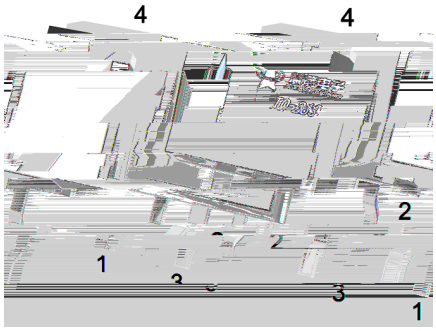
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High Efficiency Synchronous Rectification in SMPS,Uninterruptible Power Supply,BLDC Motor drive applications,Battery powered circuits.

## Ã W ] Ô · / Equ




## • Û - æ / Pin




PIN1 y G PIN 2o•4 y D PIN 3 y S

## , M V / Mar

• - ~ ª ¢ož

See Marking Instructions.

## Ã a ? d / Abs Max Rat (Ta=25 ; )

| @ ƒ Parameter | | … Z Symbol | ƒ › Rating | % y Unit |
|---|---|---|---|---|
| Drain-Source Voltage | | $V_{DSS}$ | 60 | V |
| Drain Current | | $I_D$(Tc=25 ) | 225 | A |
| Pulsed Drain Current | | $I_{DM}$ | 646 | A |
| Gate-Source Voltage | | $V_{GS}$ | ±20 | V |
| Single Pulsed Avalanche Energy L=0.5mH | | $E_{AS}$ | 380 | mJ |
| Avalanche Current | | $I_{AS}$ | 30.8 | A |
| Total Power Dissipation | | $P_D$(Tc=25 ) | 125 | W |
| Junction and Storage Temperature Range | | $T_J$,$T_{STG}$ | -55 to 150 | |
| Thermal Resistance-Junction to Ambient | Steady-State | R ©JA | 50 | - /W |
| Thermal Resistance-Junction to Case | Steady-State | R ©JC | 0.63 | |

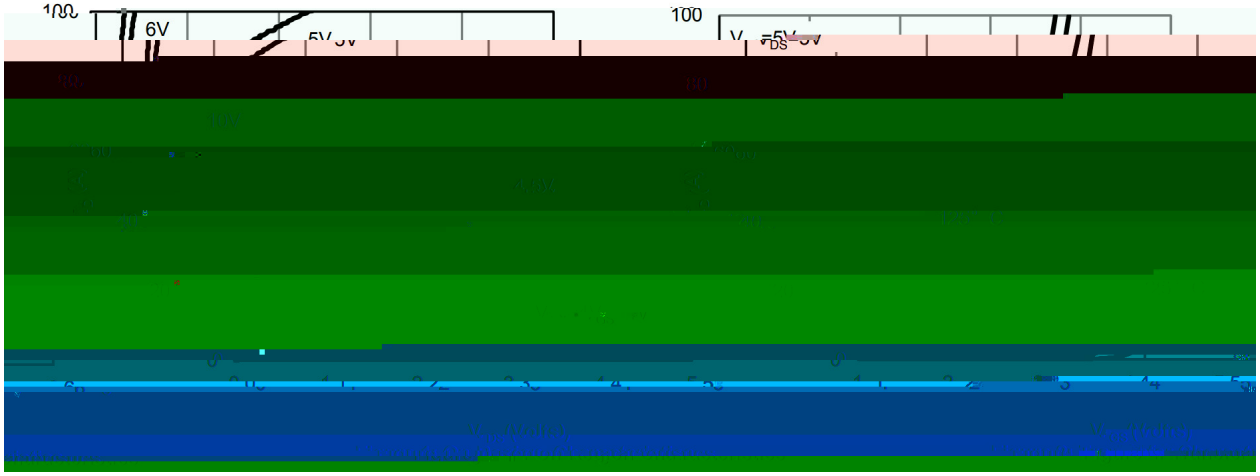
## Ô4ì × ? d / Elec Char (Ta=25 ; )

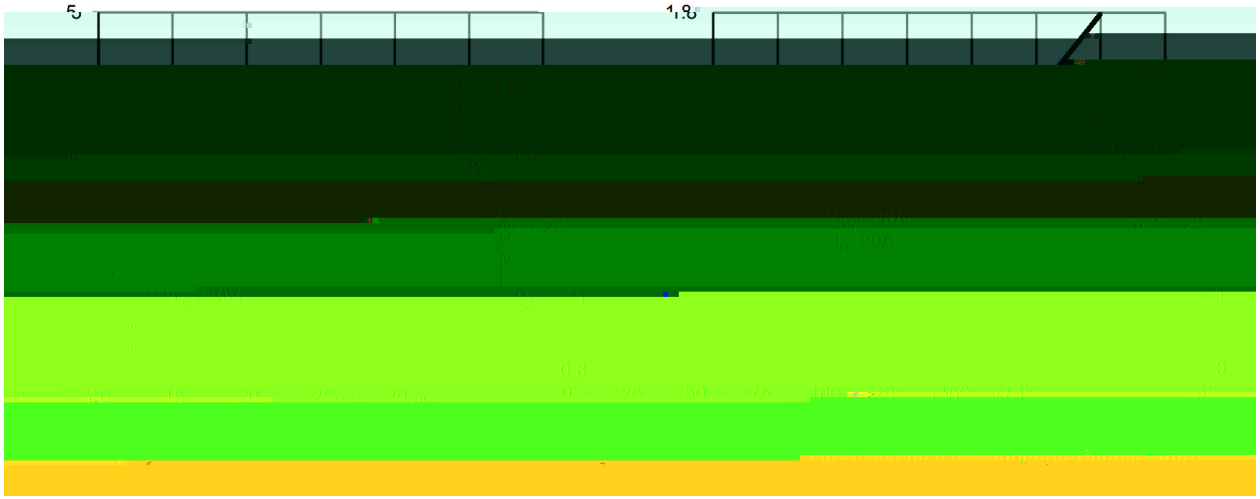
| @ ƒ Parameter | … Z Symbol | y ¡ Ú ^ Test Conditions | Â 4 › Min | Á º › Typ | Â Ý › Max | % y Unit |
|---|---|---|---|---|---|---|
| Drain-Source Breakdown Voltage | $BV_{DSS}$ | $V_{GS}$=0V $I_D$=250 A | 60 | 65 | | V |
| Zero Gate Voltage Drain Current | $I_{DSS}$ | $V_{DS}$=60V $V_{GS}$=0V | | | 1 | A |
| Gate-Body Leakage Current Forward | $I_{GSS}$ | $V_{GS}$=±20V $V_{DS}$=0V | | | ±100 | nA |
| Gate Threshold Voltage | $V_{GS(th)}$ | $V_{DS}$=$V_{GS}$ $I_D$=250 A | 2 | 3 | 4 | V |
| Static Drain-Source On-Resistance | $R_{DS(on)}$ | $V_{GS}$=10V $I_D$=20A | | 1.9 | 2.2 | m |
| Forward On Voltage | $V_{SD}$ | $V_{GS}$=0V $I_S$=1A | | | 1.2 | V |
| Gate resistance | $R_g$ | f=1MHz | | 1.0 | | |
| Input Capacitance | $C_{iss}$ | $V_{DS}$=25V $V_{GS}$=0V f=1MHz | | 6700 | | pF |
| Output Capacitance | $C_{oss}$ | | | 1400 | | |
| Reverse Transfer Capacitance | $C_{rss}$ | | | 70 | | |

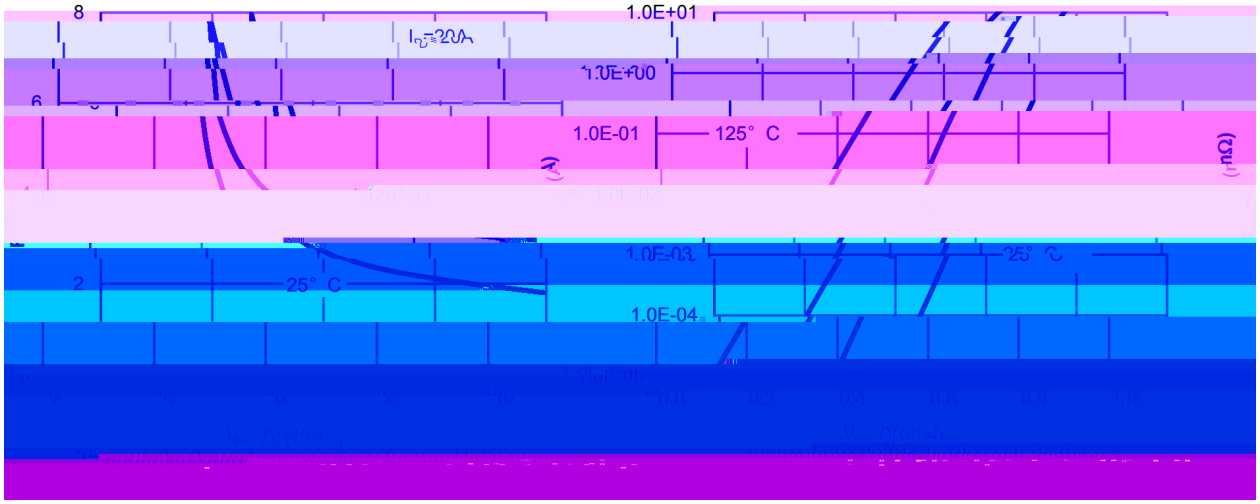
## Ô4ì × ? d / ElectalChaacteis(Ta=25 ; )

| @ ƒ<br>Parameter | … Z<br>Symbol | y ¡ Ú ^<br>Test Conditions | Â 4 ›<br>Min | Á º ›<br>Typ | Â Ý ›<br>Max | % y<br>Unit |
|---|---|---|---|---|---|---|
| Total Gate Charge | $Q_g$ | $V_{GS}$=10V $V_{DS}$=30V<br>$I_D$=20A | | 60 | | nC |
| Gate Source Charge | $Q_{gs}$ | | | 16 | | |
| Gate Drain Charge | $Q_{gd}$ | | | 3 | | |
| Turn-On Delay Time | $t_{d(on)}$ | $V_{GS}$=10V $V_{DS}$=20V<br>$R_L$=1 $R_{GEN}$=3 | | 13 | | ns |
| Turn-On Rise Time | $t_r$ | | | 4 | | |
| Turn-Off Delay Time | $t_{d(off)}$ | | | 47 | | |
| Turn-Off Fall Time | $t_f$ | | | 6.5 | | |

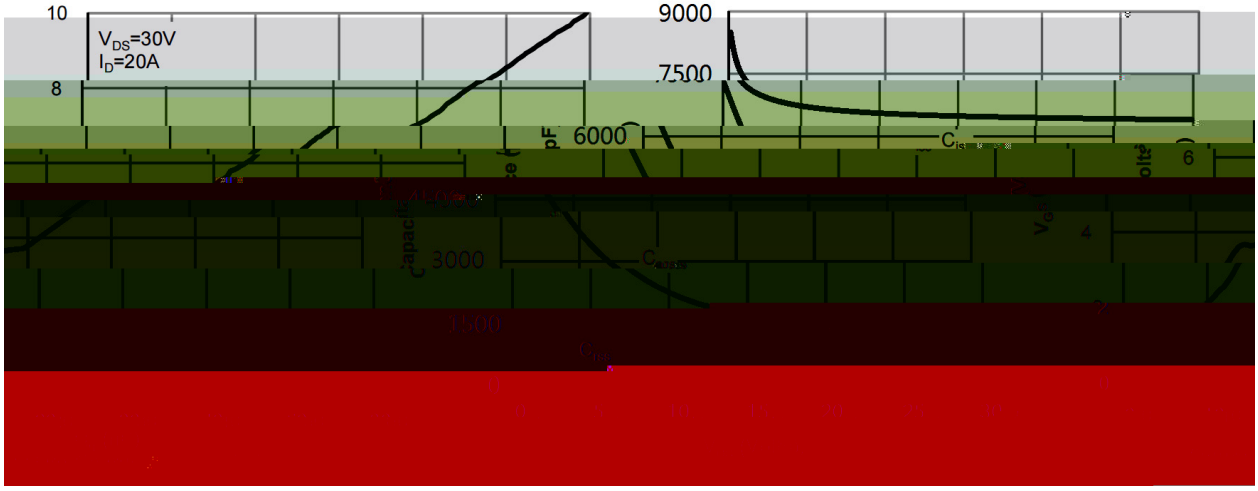
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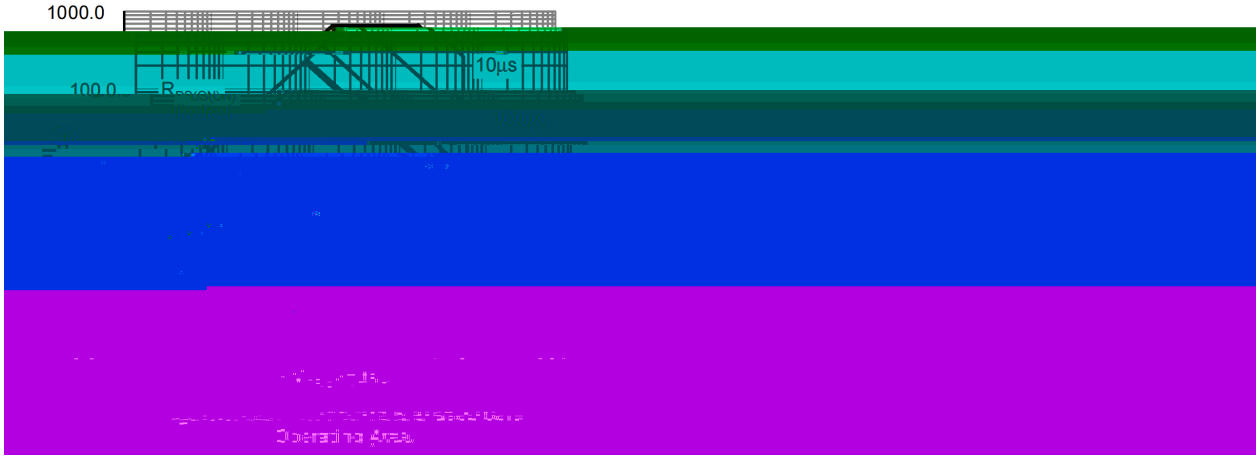


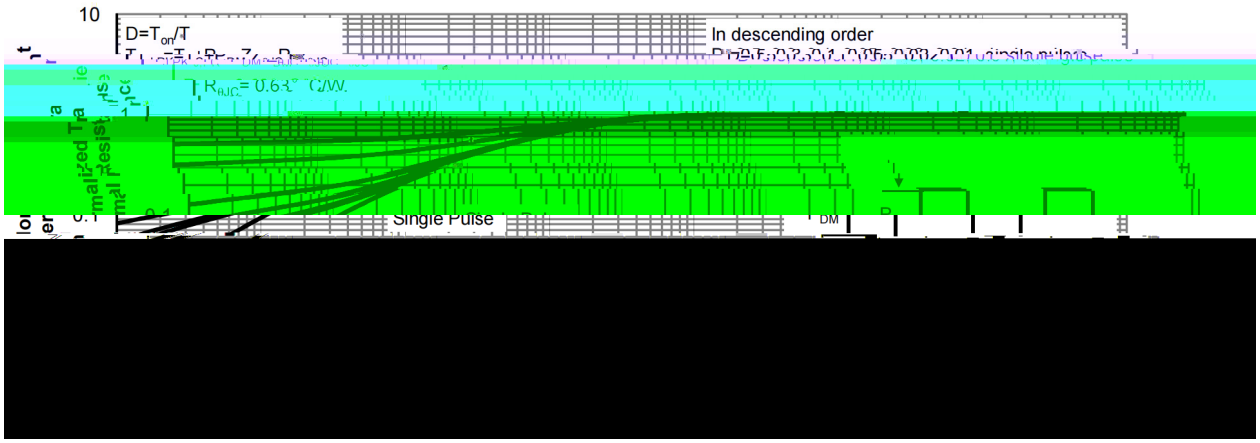



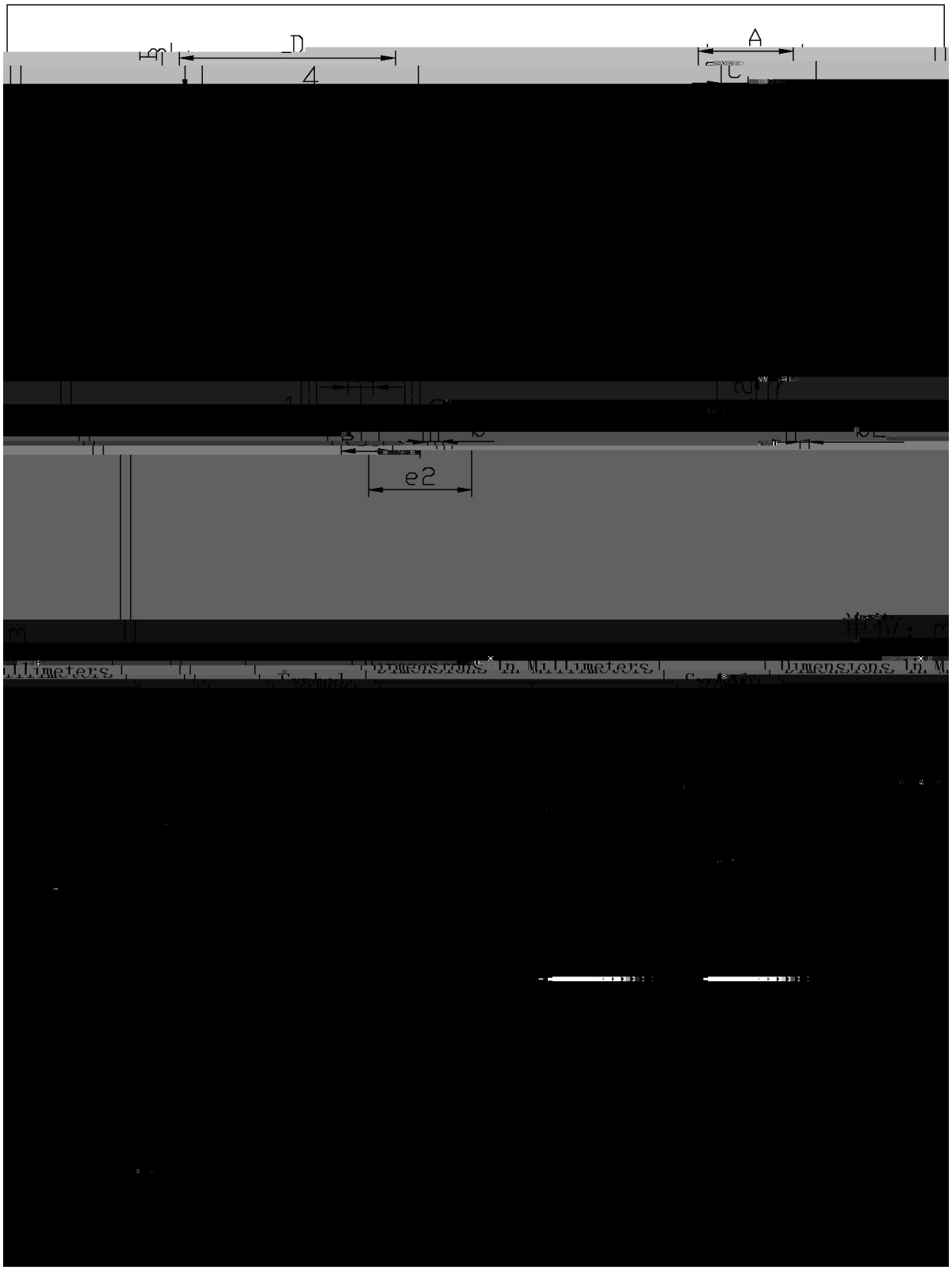
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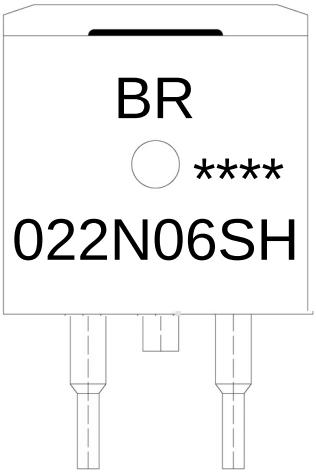



## Ø ¤ = ) ¢ / Package Dimension



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Note:

| | |
|---|---|
| BR: | Company Code |
| 022N06SH: | Product Type Code |
| ****: | Lot No. Code, code change with Lot No |

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1o• Ä ½ “ † 150 ½180 - k ž • 60 ½90sec;

2o• Q › “ † 245

Note:

1.Preheating:150~180 - , Time:60~90sec.