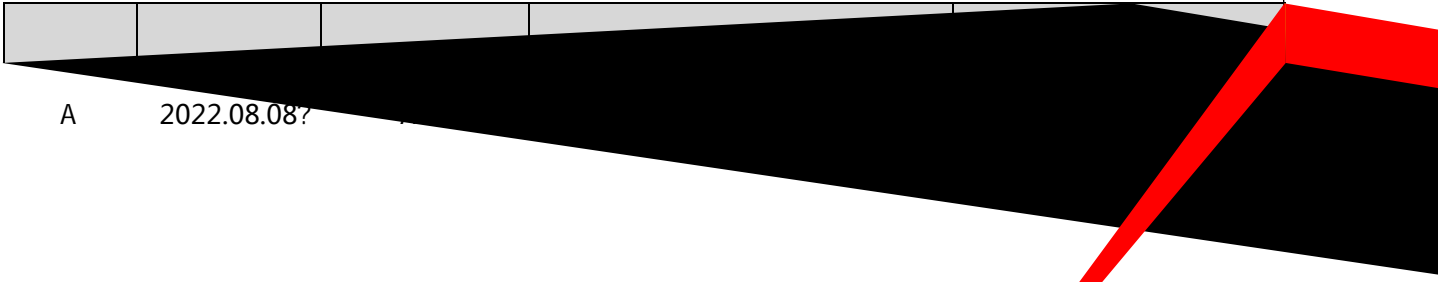


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DATA SHEET



A 2022.08.08?

/ Descriptions

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

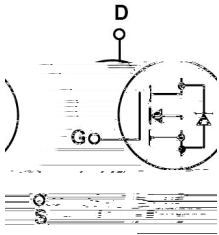
/ Features

Ultra Low On-Resistance,fast switching,HF Product.

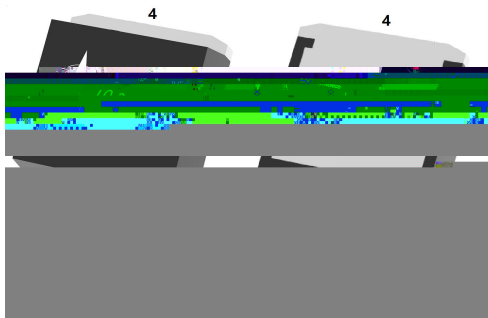
/ Applications

BMS
High frequency switching and synchronous rectification,BMS,Motor.

/ Equivalent Circuit



/ Pinning



PIN1 G PIN 2 4 D PIN 3 S

/ Marking

See Marking Instructions.

| Parameter | Symbol | Rating | Unit | |
|---|-----------------------|------------|------------|--------------|
| Drain-Source Voltage | V_{DSS} | 100 | V | |
| Drain Current | $I_D(T_C=25^\circ C)$ | 180 | A | |
| Pulsed Drain Current | I_{DM} | 385 | A | |
| Gate-Source Voltage | V_{GS} | ± 20 | V | |
| Single Pulsed Avalanche Energy(L=0.5mH) | E_{AS} | 563 | mJ | |
| Avalanche Current | I_{AS} | 37.5 | A | |
| Total Power Dissipation | $P_D(T_C=25^\circ C)$ | 237 | W | |
| Junction and Storage Temperature Range | T_J, T_{STG} | -55 to 150 | $^\circ C$ | |
| Thermal Resistance-Junction to Ambient | $t \leq 10s$ | R_{JA} | 17.7 | $^\circ C/W$ |
| | Steady-State | | 70.7 | |
| Thermal Resistance-Junction to Case | Steady-State | R_{JC} | 0.53 | |

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|-----------------------------------|--------------|--------------------------------|-----|-----|-----------|---------|
| Drain-Source Breakdown Voltage | BV_{DSS} | $V_{GS}=0V$ $I_D=250\mu A$ | 100 | 112 | | V |
| Zero Gate Voltage Drain Current | I_{DSS} | $V_{DS}=100V$ $V_{GS}=0V$ | | | 1 | μA |
| Gate-Body Leakage Current Forward | I_{GSS} | $V_{GS}=\pm 20V$ $V_{DS}=0V$ | | | ± 100 | nA |
| Gate Threshold Voltage | $V_{GS(th)}$ | $V_{DS}=V_{GS}$ $I_D=250\mu A$ | 2 | 2.9 | 4 | V |
| Static Drain-Source On-Resistance | $R_{DS(on)}$ | $V_{GS}=10V$ $I_D=20A$ | | 3.5 | 4.0 | m |

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DATA SHEET

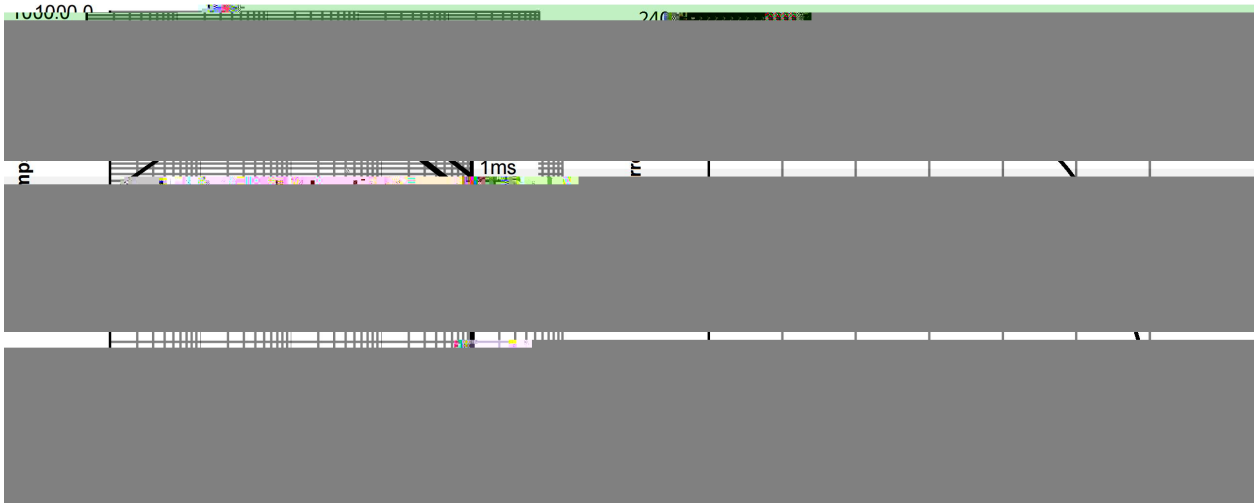
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------|-------------|---|-----|-----|-----|------|
| Turn-On Delay Time | $t_{d(on)}$ | | | 25 | | |
| Turn-On Rise Time | t_r | $V_{GS}=10V$ $R_L=2.5$ $V_{DS}=50V$ $R_{GEN}=3$ | | 17 | | ns |

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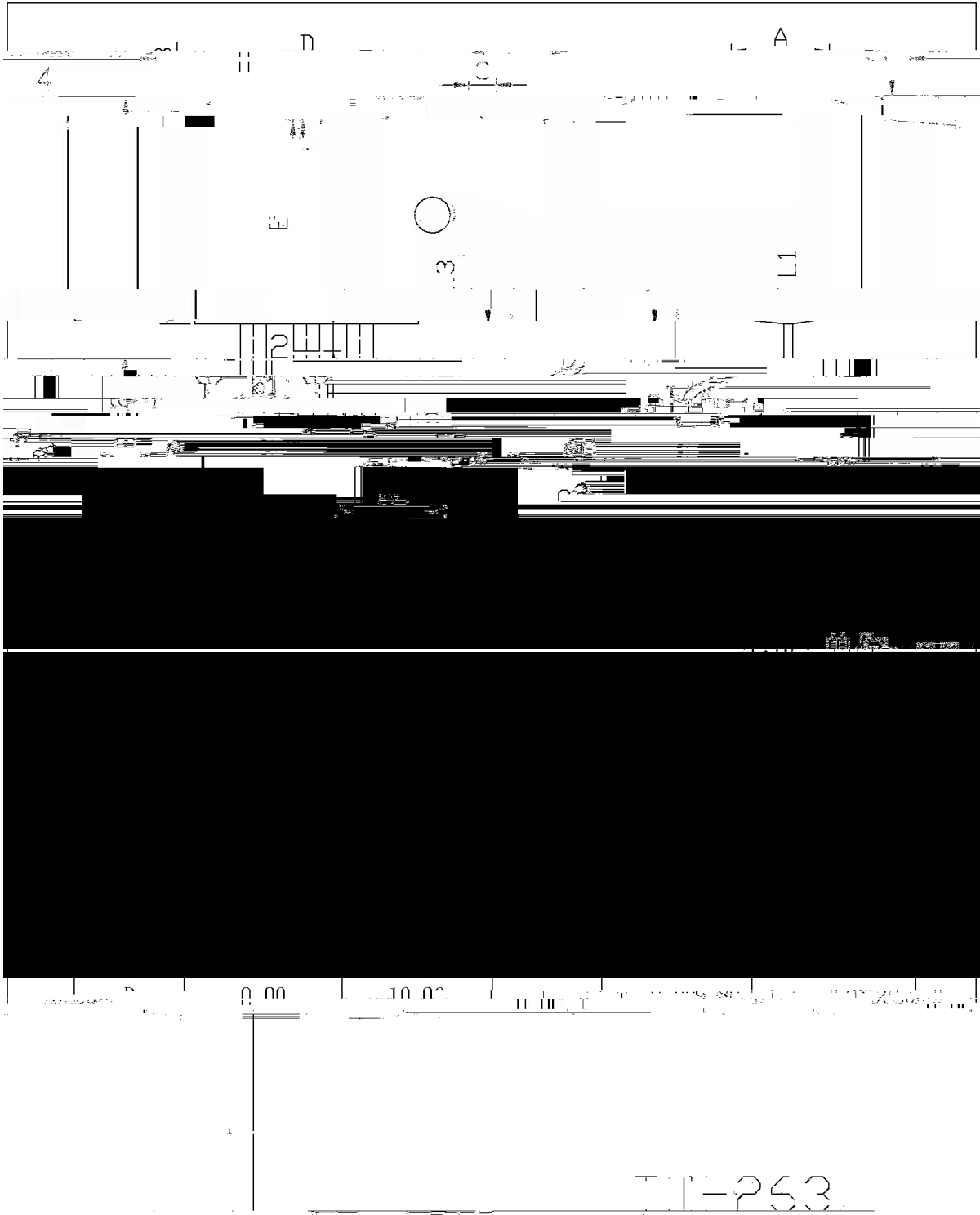
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I M DAB

/ Electrical Characteristic Curve



/ Package Dimensions





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Note:

- | | | | |
|---|---------|-----------|--|
| 1 | 150 180 | 60 90sec; | 1.Preheating:150~180°C, Time:60~90sec. |
| 2 | 245±5 | 5±0.5sec; | 2.Peak Temp.:245±5°C, Duration:5±0.5sec. |
| 3 | 2 | 10°C/sec. | 3. Cooling Speed: 2~10°C/sec. |

/ Resistance to Soldering Heat Test Conditions

260±5°C 10±1 sec. Temp.:260±5°C Time:10±1 sec

/ Packaging SPEC.

/ REEL

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm ³) | | |
|----------------------|-----------------|----------------------|----------------------|----------------------------|----------------------|---|-------------|-------------|
| | Units/Reel / | Reels/Inner Box / | Units/Inner Box / | Inner Boxes/Outer Box / | Units/Outer Box / | Reel | Inner Box 盒 | Outer Box 箱 |
| TO-263 | 800 | 1 | 800 | 6 | 4,800 | 13" ×24 | 360×360×50 | 380×335×366 |

/ TUBE

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm ³) | | |
|----------------------|-----------------|----------------------|----------------------|----------------------------|----------------------|---|-------------|-------------|
| | Units/Tube / | Tubes/Inner Box / | Units/Inner Box / | Inner Boxes/Outer Box / | Units/Outer Box / | Tube 套管 | Inner Box 盒 | Outer Box 箱 |
| TO-263 | 50 | 20 | 1,000 | 5 | 5,000 | 532×33×7.0 | 555×164×50 | 575×290×180 |

/ Notices