

TO-263 .> // x N ?ú 3 MOS « | • 'ož N-CHANNEL MOSFET in a TO-263 Plastic Package.

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Low gate charge, low crss, fast switching. Halogen-free Product.

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

PIN1 y G

PIN 2o•4 y D

PIN 3 y S

Z Ü B , M V / h<sub>FE</sub>

| @ f<br>Parameter                       | ... Z<br>Symbol              | f ><br>Rating | % y<br>Unit |
|----------------------------------------|------------------------------|---------------|-------------|
| Drain-Source Voltage                   | $V_{DSS}$                    | 80            | V           |
| Drain Current                          | $I_D(T_C=25^\circ\text{C})$  | 100           | A           |
| Drain Current                          | $I_D(T_C=100^\circ\text{C})$ | 72            | A           |
| Peak Drain Current                     | $I_{DM}$                     | 320           | A           |
| Gate-Source Voltage                    | $V_{GSS}$                    | $\pm 20$      | V           |
| Repetitive Avalanche Energy            | $E_{AS}$                     | 1164          | mJ          |
| Repetitive Avalanche Energy            | $E_{AR}$                     | 13.1          | mJ          |
| Avalanche Current                      | $I_{AR}$                     | 75            | A           |
| Total Power Dissipation                | $P_D(T_C=25^\circ\text{C})$  | 165           | W           |
| Junction and Storage Temperature Range | $T_J, T_{STG}$               | -55 to 150    |             |

| @ f<br>Parameter                  | ... Z<br>Symbol | y i Ú ^<br>Test Conditions                          | Â 4 ><br>Min | Á ° ><br>Typ | Â Ý ><br>Max | % y<br>Unit |
|-----------------------------------|-----------------|-----------------------------------------------------|--------------|--------------|--------------|-------------|
| Zero Gate Voltage Drain Current   | $BV_{DSS}$      | $V_{GS}=0V$ $I_D=250\text{ A}$                      | 80           |              |              | V           |
| Zero Gate Voltage Drain Current   | $I_{DSS}$       | $V_{DS}=80V$ $V_{GS}=0V$                            |              |              | 1            | A           |
|                                   |                 | $V_{DS}=80V$ $V_{GS}=0V$<br>$T_C=125^\circ\text{C}$ |              |              | 10           | A           |
| Gate-Body Leakage Current Forward | $I_{GSS}$       | $V_{GS}=\pm 20V$ $V_{DS}=0V$                        |              |              | $\pm 0.1$    | A           |
| Gate Threshold Voltage            | $V_{GS(th)}$    | $V_{DS}=V_{GS}$ $I_D=250\text{ A}$                  | 2            |              | 4            | V           |
| Static Drain-Source On-Resistance | $R_{DS(on)}$    | $V_{GS}=10V$ $I_D=40A$                              |              | 6.5          | 8            | m           |
| Forward Transconductance          | $g_{FS}$        | $V_{DS}=5V$ $I_D=30A$                               |              | 58           |              | S           |



Ø □ = ) ¢ / Package Dimensions

, M y f / Marking Instructions

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BR y , [ W A

šWD t... •Žč (x/ ) / :KSVKXGZ[XK 6XULORK LUX /8 8KLURU] 9URJKXOTM 6

a č y

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

2o• Q > “† 245 r5 - k ž • 4 Ò 5 r0.5sec;

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

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

2.Peak Temp.:245 r5 - , Duration:5 r0.5sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

“† y 260 r5 -

ž • y 10 r1 sec.

Temp.:260±5

Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

| Package Type<br>ß m ù ´ | Units g m ô h      |                            |                        |                                |                        | Dimension g m d Ê (unit ! mm³) |            |             |
|-------------------------|--------------------|----------------------------|------------------------|--------------------------------|------------------------|--------------------------------|------------|-------------|
|                         | Units/Reel<br>/  í | Reels/Inner Box<br>  í / ç | Units/Inner Box<br>/ ç | Inner Boxes/Outer Box<br>ç / ± | Units/Outer Box<br>/ ± | Reel                           | Inner Boxç | Outer Box±  |
| TO-263                  | 800                | 1                          | 800                    | 5                              | 4,000                  | 13s ×24                        | 360×360×50 | 385×257×392 |

ì ´ x / TUBE

| Package Type<br>ß m ù ´ | Units g m ô h      |                            |                        |                                |                        | Dimension g m d Ê (unit ! mm³) |            |             |
|-------------------------|--------------------|----------------------------|------------------------|--------------------------------|------------------------|--------------------------------|------------|-------------|
|                         | Units/Tube<br>/Š • | Tubes/Inner Box<br>Š • / ç | Units/Inner Box<br>/ ç | Inner Boxes/Outer Box<br>ç / ± | Units/Outer Box<br>/ ± | TubeŠ •                        | Inner Boxç | Outer Box±  |
| TO-263                  | 50                 | 20                         | 1,000                  | 5                              | 5,000                  | 532×33×7.0                     | 555×164×50 | 575×290×180 |

„ Ð y f / Notices