

|  | ! " # | \$ ! %<br>& ' | ! ( ) % * +                                                                                   | , -   | . /   |
|--|-------|---------------|-----------------------------------------------------------------------------------------------|-------|-------|
|  |       |               |                                                                                               |       |       |
|  |       |               | 0 1 2 3 4 5 6 7 8                                                                             | 9 :   | ; < = |
|  |       |               | > ? @ A B C D    B C D<br>E F G H I J        K L H                                            | M N O | P Q R |
|  |       |               | R <sub>DS(on)</sub> V <sub>GS</sub> =10V I <sub>D</sub> =50A 最大值<br>5.5 mΩ 改为 3.8 mΩ;波峰焊改为回流焊 | 9 :   | M N O |
|  |       |               | S T U                                                                                         | 9 :   | M N O |
|  |       |               | V W X            Y Z > [ U                                                                    |       |       |

/ Descriptions

TO-263 \ Y Y Z N ] ^ MOS \_ ` a b c  
N-CHANNEL MOSFET in a TO-263 Plastic Package.

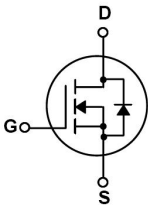
/ Features

d e f g d h i f + j K k l m n 5 6 o p c  
Low gate charge, low crss, fast switching,

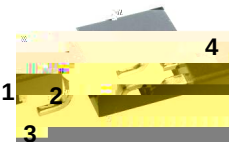
/ Applications

q r s t u v w x t u j K c  
These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

/ Equivalent Circuit



/ Pinning



PIN1 y G      PIN 2 y D      PIN 3 y S      PIN 4 y D

/ Marking

z { | } ~ c See Marking Instructions.



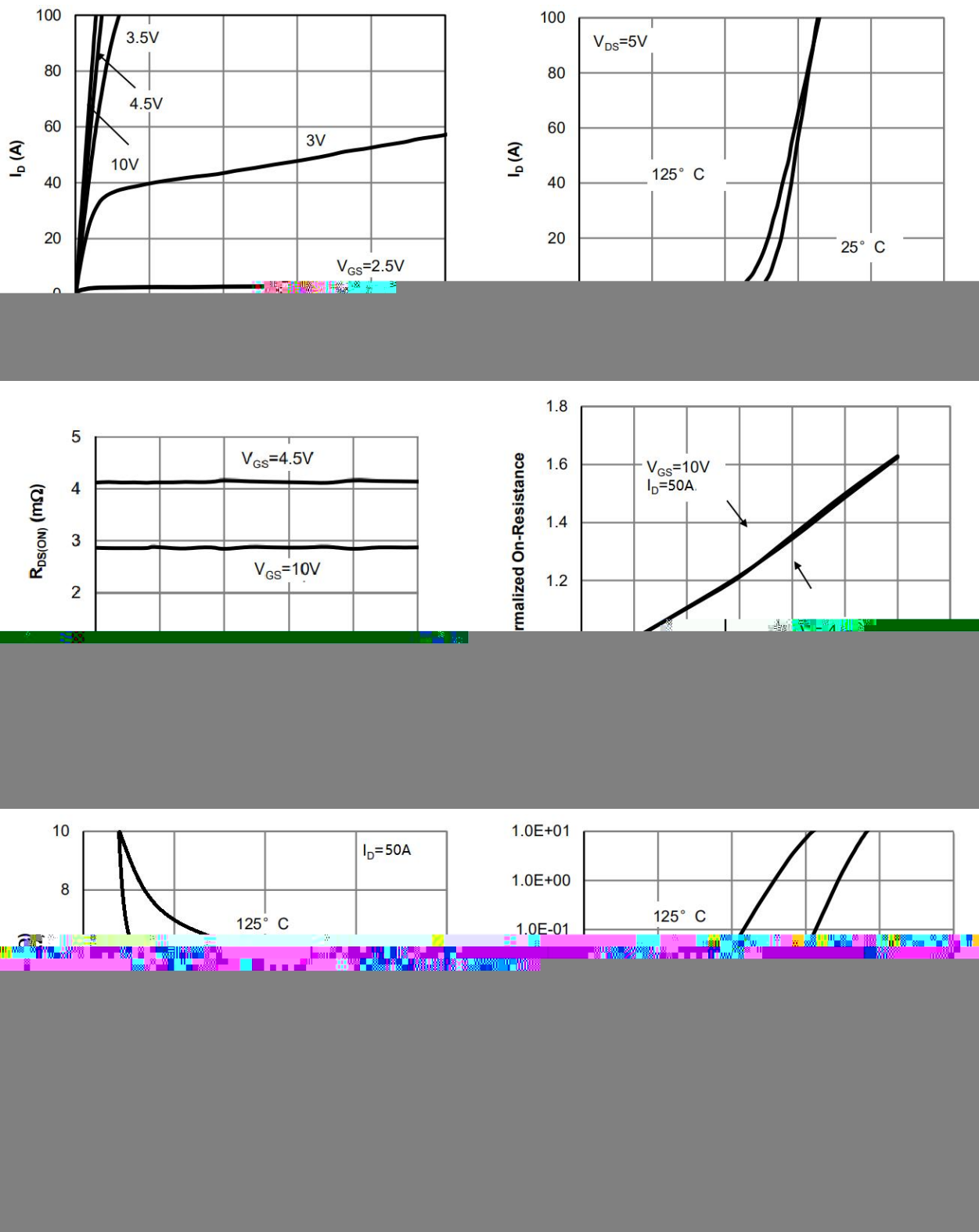
DATA SHEET

|                      | 符号<br>Symbol | 数值<br>Rating | 单位<br>Unit |
|----------------------|--------------|--------------|------------|
| Drain-Source Voltage | $V_{DSS}$    | 30           | V          |

## / Electrical Characteristics(Ta=25 )

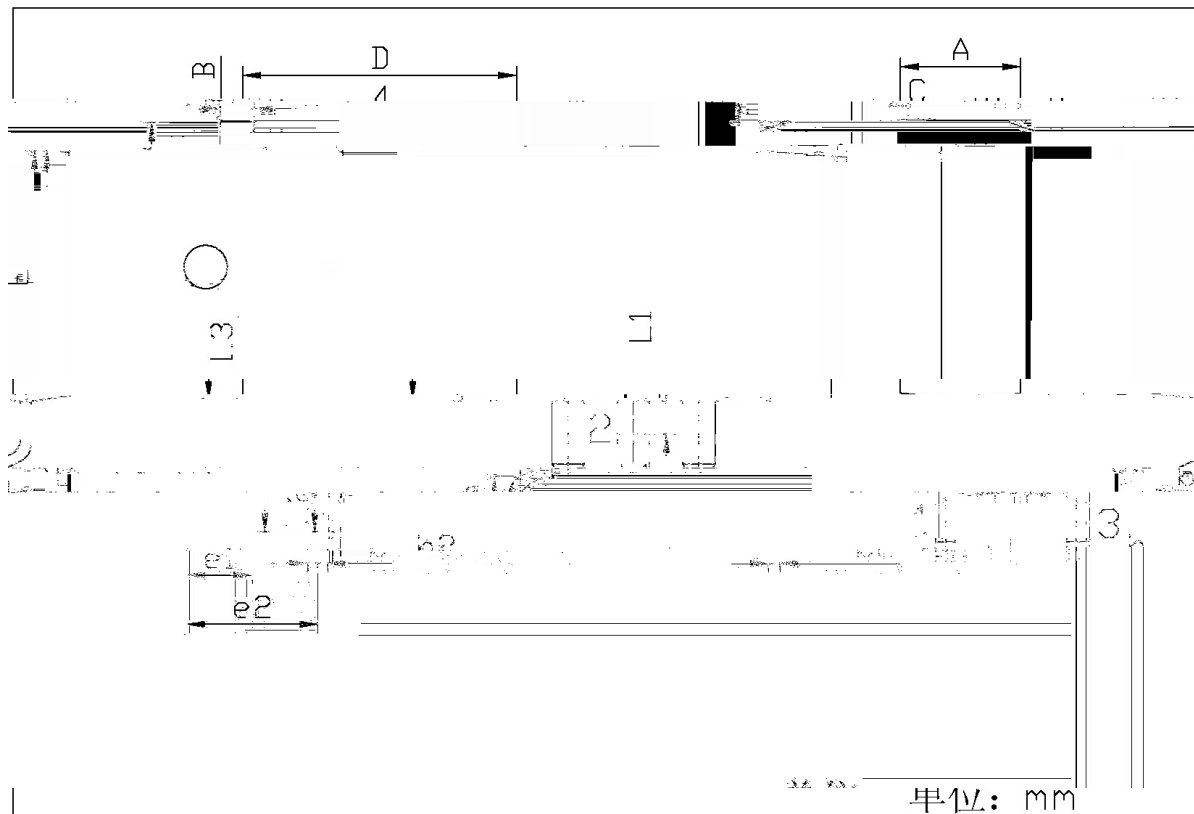
| 参数<br>Parameter     | 符号<br>Symbol  | 测试条件<br>Test Conditions                                          | 最小值<br>Min | 典型值<br>Typ | 最大值<br>Max | 单位<br>Unit |
|---------------------|---------------|------------------------------------------------------------------|------------|------------|------------|------------|
| Total Gate Charge   | $Q_{g(10V)}$  | $V_{GS}=10V, \quad V_{DS}=15V, \quad I_D=20A$                    |            | 80         |            | nC         |
| Total Gate Charge   | $Q_{g(4.5V)}$ |                                                                  |            | 35         |            |            |
| Gate Source Charge  | $Q_{gs}$      |                                                                  |            | 13         |            |            |
| Gate Drain Charge   | $Q_{gd}$      |                                                                  |            | 13         |            |            |
| Turn-On Delay Time  | $t_{d(on)}$   | $V_{DD}=15V \quad I_D=1A \quad R_{GEN}=6\Omega \quad V_{GS}=10V$ |            | 25.7       | 50         | ns         |
| Turn-On Rise Time   | $t_r$         |                                                                  |            | 10         | 20         | ns         |
| Turn-Off Delay Time | $t_{d(off)}$  |                                                                  |            | 128        | 200        | ns         |
| Turn-Off Fall Time  | $t_f$         |                                                                  |            | 34         | 70         | ns         |

/ Electrical Characteristic Curve





## / Package Dimensions

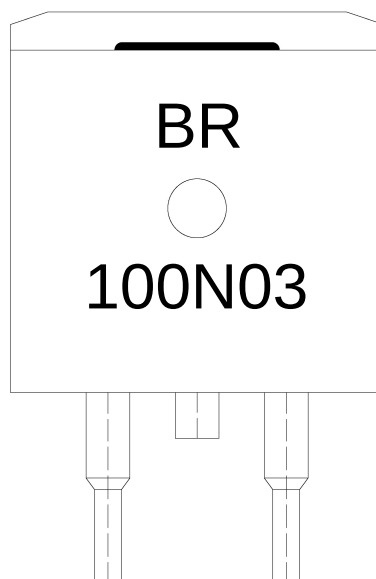


| D     |      | D     |      | D    |      | D    |      |
|-------|------|-------|------|------|------|------|------|
| 16:00 | 2:84 | 1:00  | 1:20 | 1:05 | 0:40 | 1:35 | 1:20 |
| 2:84  | 1:00 | 1:20  | 1:05 | 0:40 | 1:35 | 1:20 | 1:00 |
| 1:00  | 1:20 | 1:05  | 0:40 | 1:35 | 1:20 | 1:00 | 1:20 |
| D     | 9.80 | 10.20 |      |      |      |      |      |

T0-263



**/ Marking Instructions**



BR

100N03

\*\*\*\*

Note:

BR: Company Code

100N03: Product Type

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



( ) /

|  |
|--|
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|  |
|  |
|  |
|  |
|  |

Note:

- 1            150   180            60   90sec;  
 2            245±5            5±0.5sec;  
 3                    2   10°C/sec.

- 1.Preheating:150~180°C, Time:60~90sec.  
 2.Peak Temp.:245±5°C, Duration:5±0.5sec.  
 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