

**BRCS035**

**/ Descriptions**

TO-252                      N

N-CHANNEL MOSFET in a TO-252 Plastic Package.

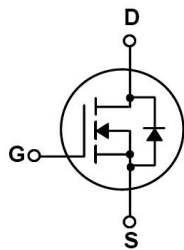
**/ Features** $R_{DS(on)}$                        $C_{rss}$                       AEC-Q101

Low  $R_{DS(on)}$ , low gate charge, low  $C_{rss}$ , fast switching, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

**/ Applications**

DC/DC

Suited for low voltage applications such as automotive, DC/DC Converters, and high efficiency switching for power management in portable and battery operated products, Meet the stringent requirements of automotive applications.

**/ Equivalent Circuit****/ Pinning**

PIN1    G

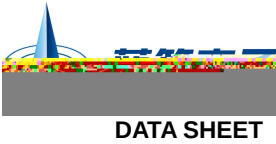
PIN 2    D

PIN 3    S

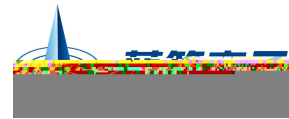
PIN 4    D

**/ Marking**

See Marking Instructions.



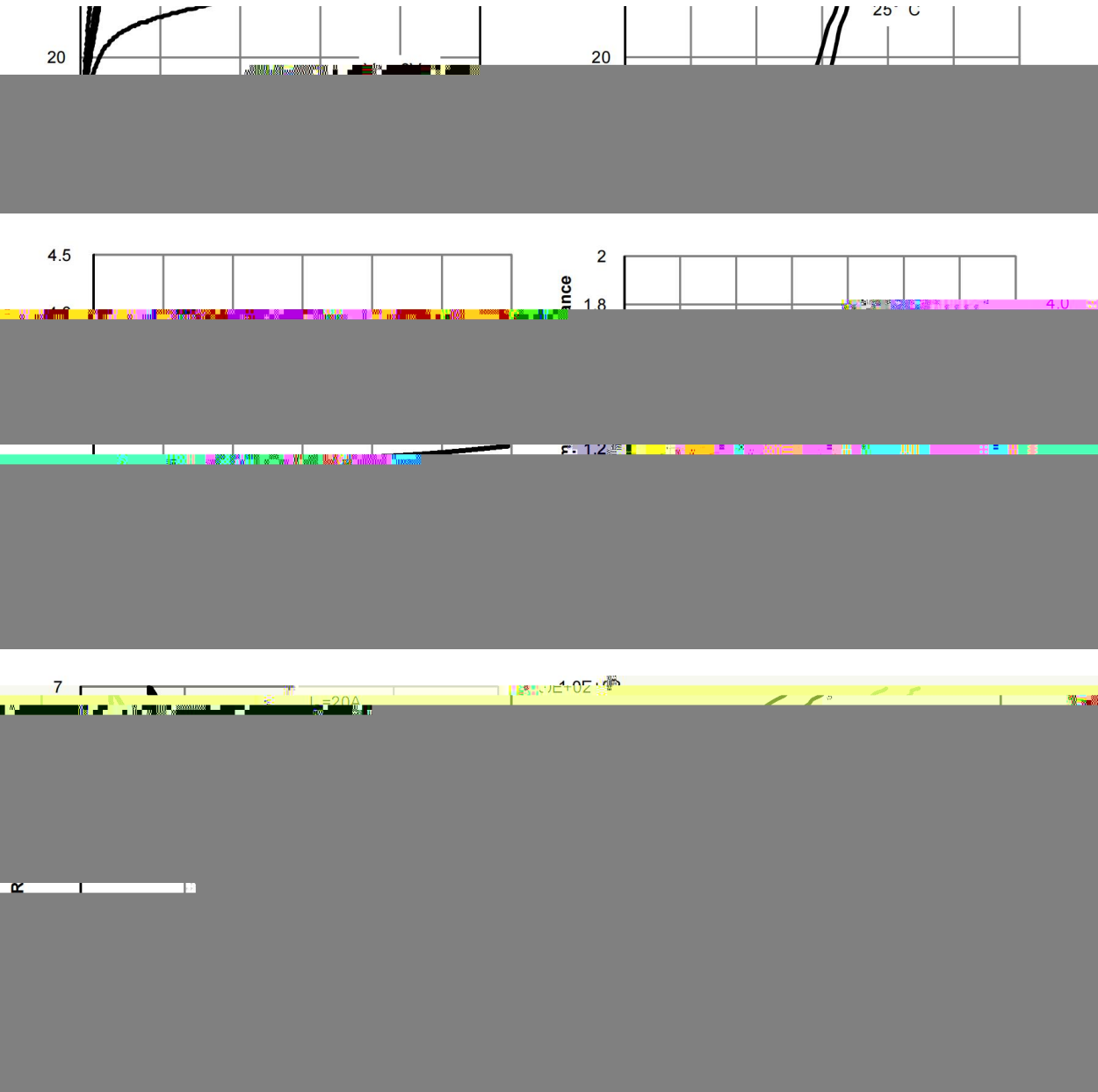
Rating 8 1 Tf 07300 SC 0 Tr90 Tr 39.0



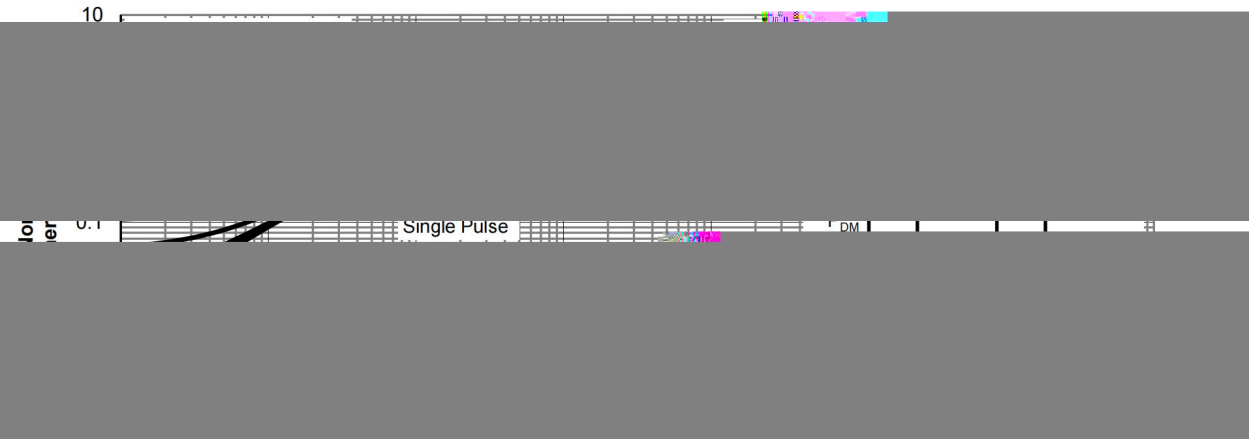
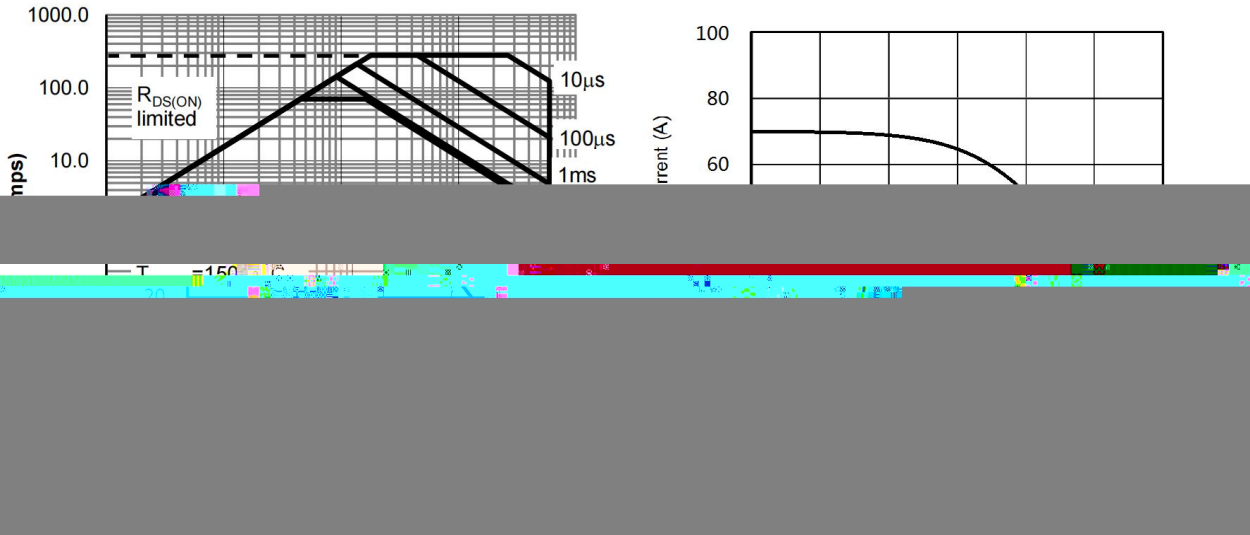
## / Electrical Characteristics(Ta=25 )

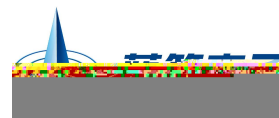
| Parameter           | Symbol       | Test Conditions                                                    | Min | Typ | Max | Unit |
|---------------------|--------------|--------------------------------------------------------------------|-----|-----|-----|------|
| Turn-On Delay Time  | $t_{d(on)}$  | $V_{GS}=10V$ $V_{DS}=30V$<br>$R_L=1.5\ \Omega$ $R_{GEN}=3\ \Omega$ |     | 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 |     |      |

/ Electrical Characteristic Curve

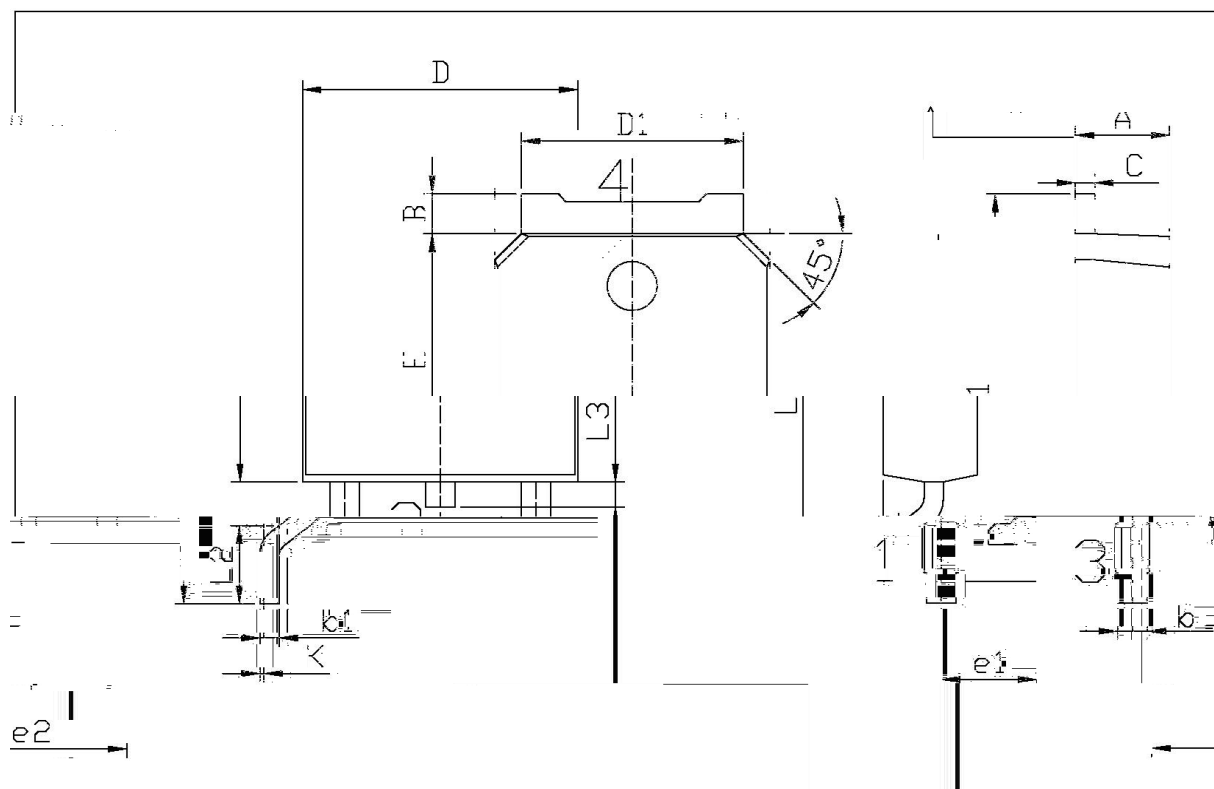


/ Electrical Characteristic Curve





## / Package Dimensions

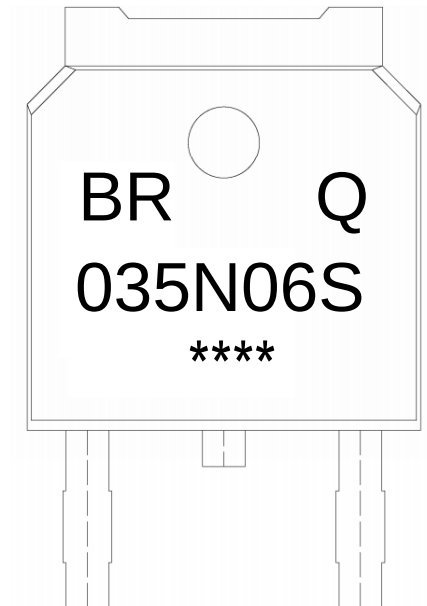


单位: mm

| Symbol | Dimension | Symbol | Dimension |
|--------|-----------|--------|-----------|
| A      | 2.40      | A      | 2.20      |
| B      | 0.95      | B      | 0.95      |
| C      | 0.25      | C      | 0.25      |
| D      | 2.24      | D      | 2.34      |
| D1     | 6.25      | D1     | 6.25      |
| E      | 4.43      | E      | 4.43      |
| L      | 10.35     | L      | 10.35     |
| L3     | 0.45      | L3     | 0.45      |
| e1     | 0.55      | e1     | 0.55      |
| e2     | 0.60      | e2     | 0.60      |
| b      | 0.70      | b      | 0.70      |
| b1     | 0.90      | b1     | 0.90      |

TQ-252

## / Marking Instructions



BR

Q

035N06S

\*\*\*\*

Note:

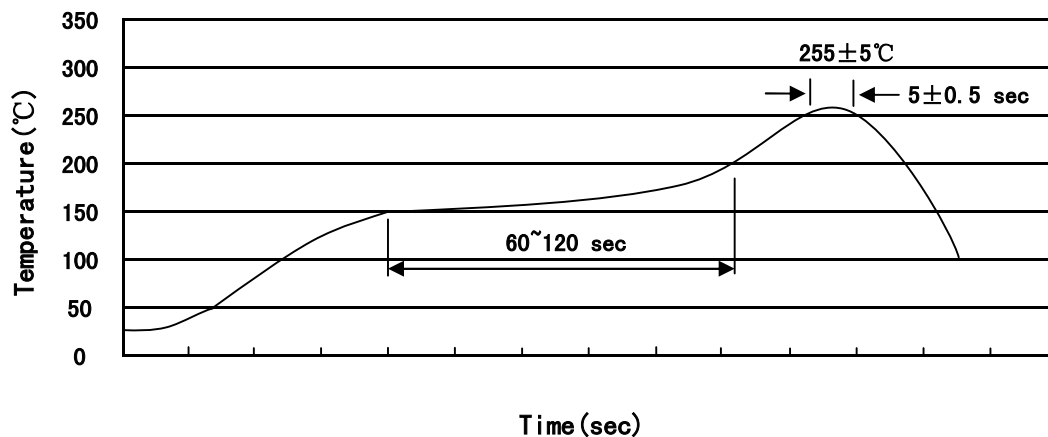
BR: Company Code

Q: Automobile halogen-free product Code

035N06S: Product Type Code

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

## ( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- |   |       |     |           |         |                                          |
|---|-------|-----|-----------|---------|------------------------------------------|
| 1 | 150   | 200 | 60        | 120sec; | 1.Preheating:150~200°C, Time:60~120sec.  |
| 2 | 255±5 |     | 5±0.5sec; |         | 2.Peak Temp.:255±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

Time:10±1 sec

## / Packaging SPEC.

## / REEL

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Reel<br>只/卷盘 | Reels/Inner Box<br>卷盘/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Reel                                    | Inner Box 盒 | Outer Box 箱 |
| TO-252               | 2,500              | 2                       | 5,000                  | 6                            | 30,000                 | 13" ×16                                 | 360×360×50  | 380×335×366 |

## / TUBE

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Tube<br>只/套管 | Tubes/Inner Box<br>套管/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Tube 套管                                 | Inner Box 盒 | Outer Box 箱 |
| TO-251/252           | 75                 | 48                      | 3,600                  | 5                            | 18,000                 | 526×20.5×5.25                           | 555×164×50  | 575×290×180 |

## / Notices