



| Parameter            | <div>Symbol</div>                     | Rating   | Unit |
|----------------------|---------------------------------------|----------|------|
| Drain-Source Voltage | $V_{DS}$                              | 60       | V    |
| Drain Current        | $I_D(T_c=25\text{ }^{\circ}\text{C})$ | 182      | A    |
| Pulsed Drain Current | $I_{DM}$                              | 530      | A    |
| Gate-Source Voltage  | $V_{GS}$                              | $\pm 20$ | V    |

| Parameter          | Symbol      | Test Conditions                                      | Min | Typ  | Max | Unit |
|--------------------|-------------|------------------------------------------------------|-----|------|-----|------|
| Turn-On Delay Time | $t_{d(on)}$ | $V_{GS}=10V$ $V_{DS}=30V$<br>$R_L=1.5q$ $R_{GEN}=3q$ |     | 15.7 |     | ns   |
| Turn-On Rise Time  | $t_r$       |                                                      |     | 16.4 |     |      |

/ Electrical Characteristic Curve

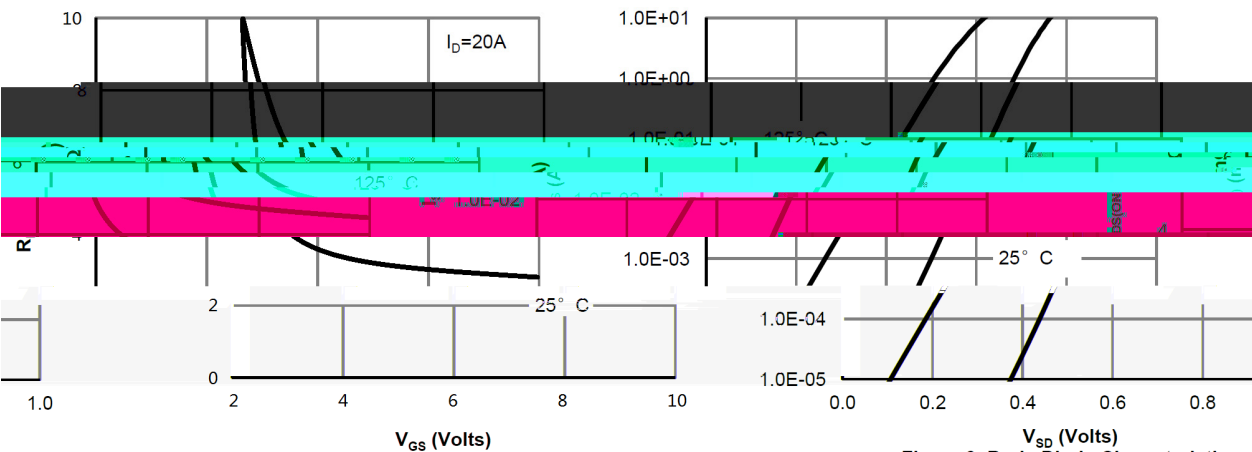
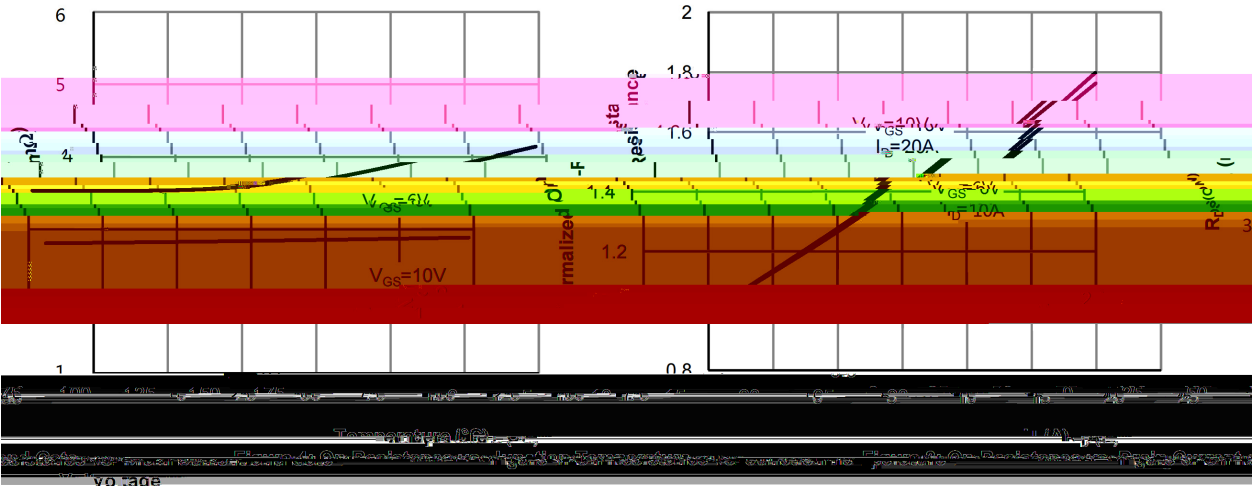
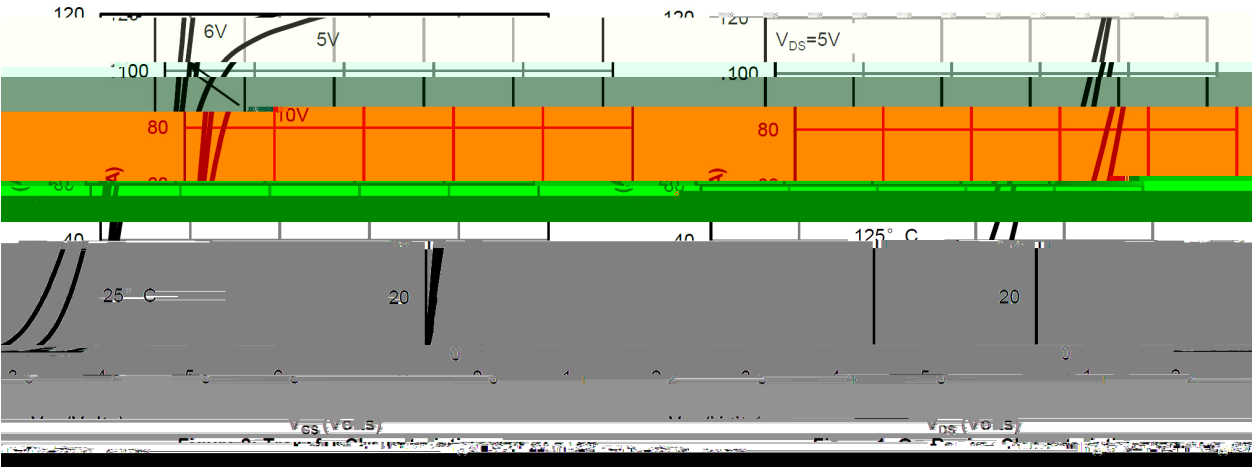
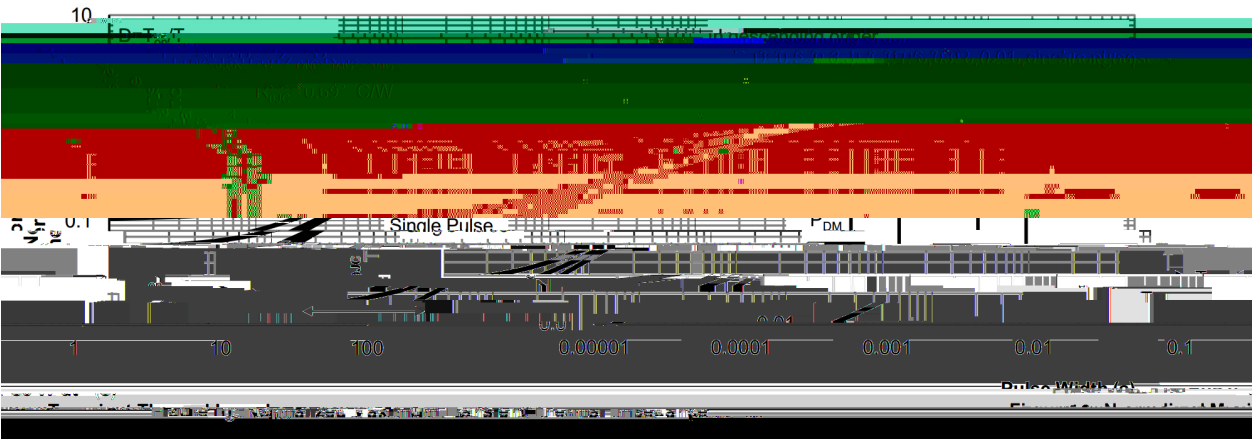
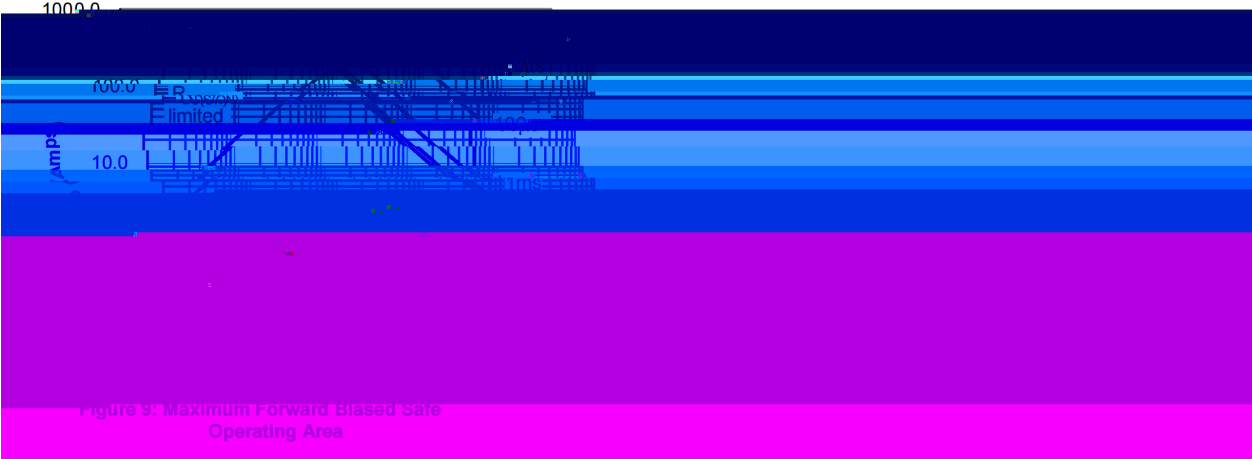
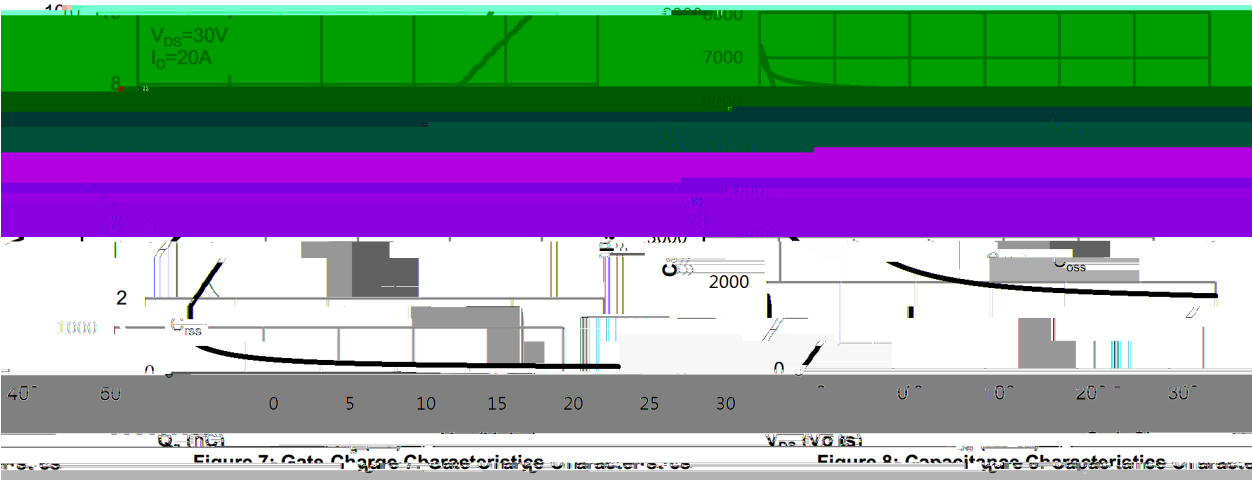


Figure 5: On-Resistance vs. Gate Source Voltage

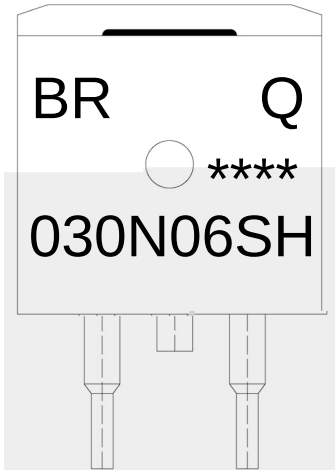
Figure 6: Body-Diode Characteristics

/ Electrical Characteristic Curve





/ Marking Instructions

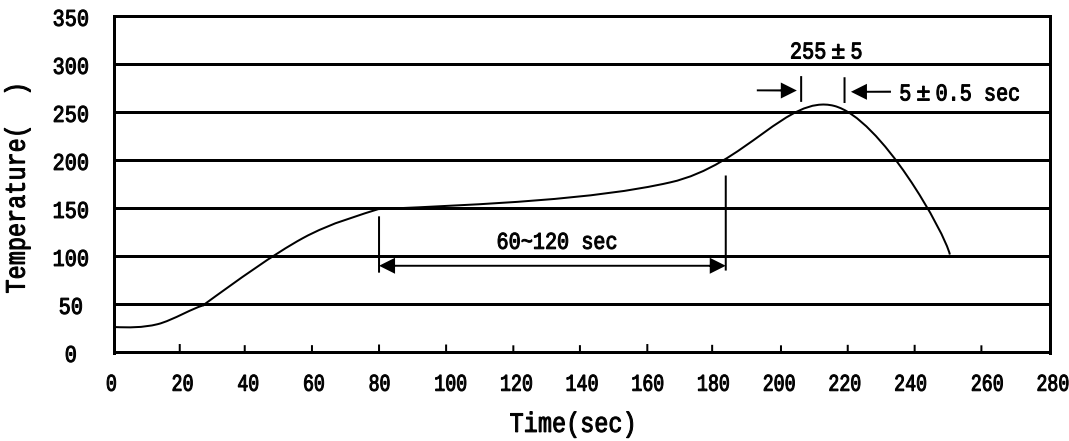


|          |         |
|----------|---------|
| EU       | W       |
| Q        |         |
| 363Q39VH | N       |
| ****     | ↓ N ↓ N |

Note:

|           |                                       |
|-----------|---------------------------------------|
| BR:       | Company Code                          |
| Q:        | Automobile halogen-free product Code  |
| 030N06SH: | 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 , Time:60~120sec.
- 2

255±5

Δ 5±0.5sec;

2.Peak Temp.:255±5 , Duration:5±0.5sec.
- 3

↘

2 10

/sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ REEL

| Package Type | Units      |                 |                 |                       |                 | Dimension (unit mm <sup>3</sup> ) |            |             |
|--------------|------------|-----------------|-----------------|-----------------------|-----------------|-----------------------------------|------------|-------------|
|              | Units/Reel | Reels/Inner Box | Units/Inner Box | Inner Boxes/Outer Box | Units/Outer Box | Reel                              | Inner Box  | Outer Box   |
| TO-263       | 800        | 1               | 800             | 6                     | 4,800           | 13 ×24                            | 360×360×50 | 380×335×366 |

1 / TUBE

| Package Type | Units      |                 |                 |                       |                 | Dimension (unit mm <sup>3</sup> ) |            |             |
|--------------|------------|-----------------|-----------------|-----------------------|-----------------|-----------------------------------|------------|-------------|
|              | Units/Tube | Tubes/Inner Box | Units/Inner Box | Inner Boxes/Outer Box | Units/Outer Box | Tube                              | Inner Box  | Outer Box   |
| TO-263       | 50         | 20              | 1,000           | 5                     | 5,000           | 532×33×7.0                        | 555×164×50 | 575×290×180 |

/ Notices