TO-263-7LA N

N-CHANNEL MOSFET in a TO-263-7LA Plastic Package.

| Parameter | | Symbol | Rating | Unit |
|---|---|---|---|---|
| Drain-Source Voltage | | $V_{DSS}$ | 100 | V |
| Drain Current DC | | $I_D$(Tc=25 ) | 300 | A |
| | | $I_D$(Tc=100 ) | 300 | A |
| Pulsed Drain Current*,** | | $I_{DM}$ | 1200 | A |
| Gate-Source Voltage | | $V_{GS}$ | ±20 | V |
| Continuous-Source Current | | $I_S$(Tc=25 ) | 300 | A |
| Single Pulsed Avalanche Energy L=1.0mH | | $E_{AS}$ | 2592 | mJ |
| Total Power Dissipation | | $P_D$(Tc=25 ) | 750 | W |
| Junction and Storage Temperature Range | | $T_J$,$T_{STG}$ | -55 to 175 | |
| Thermal Resistance-Junction to Ambient** | Steady-State | $R_{\theta JA}$ | 44 | /W |
| Thermal Resistance-Junction to Case** | Steady-State | $R_{\theta JC}$ | 0.2 | /W |

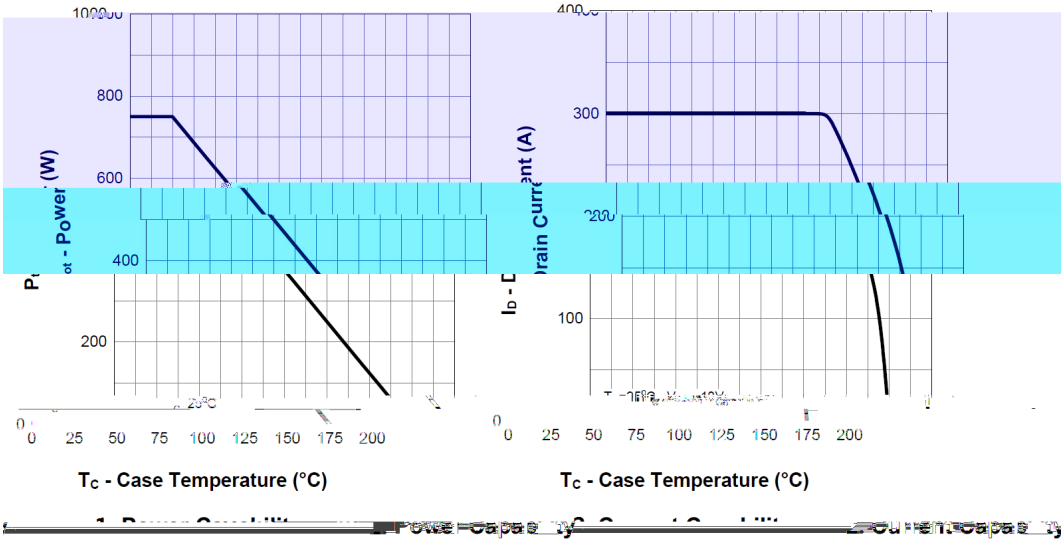
Notes:
* Pulse width 300 s, duty cycle 2 %
** Surface Mounted on minimum footprint pad area
*** Limited by bonding wire

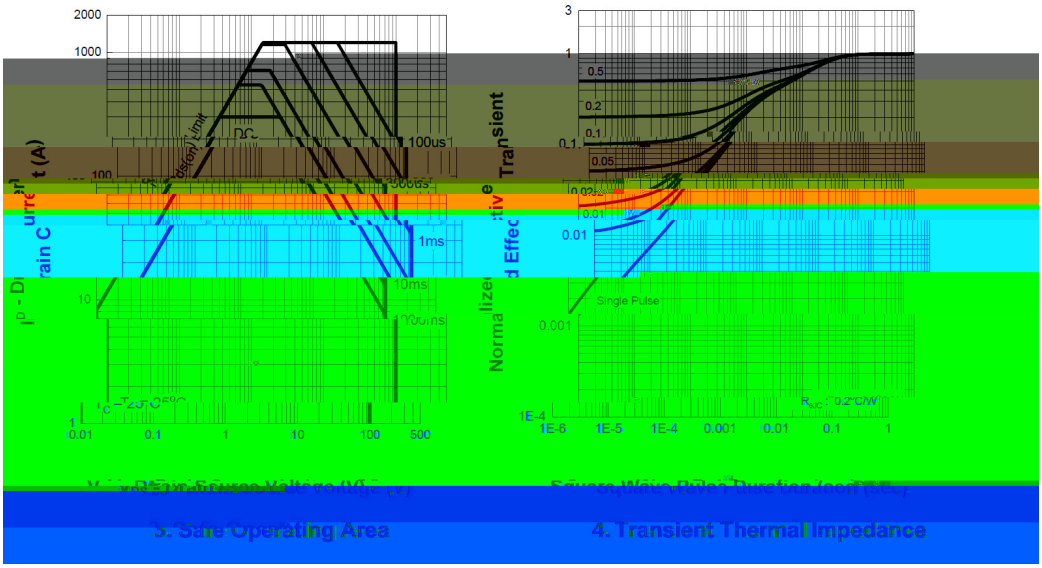
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|

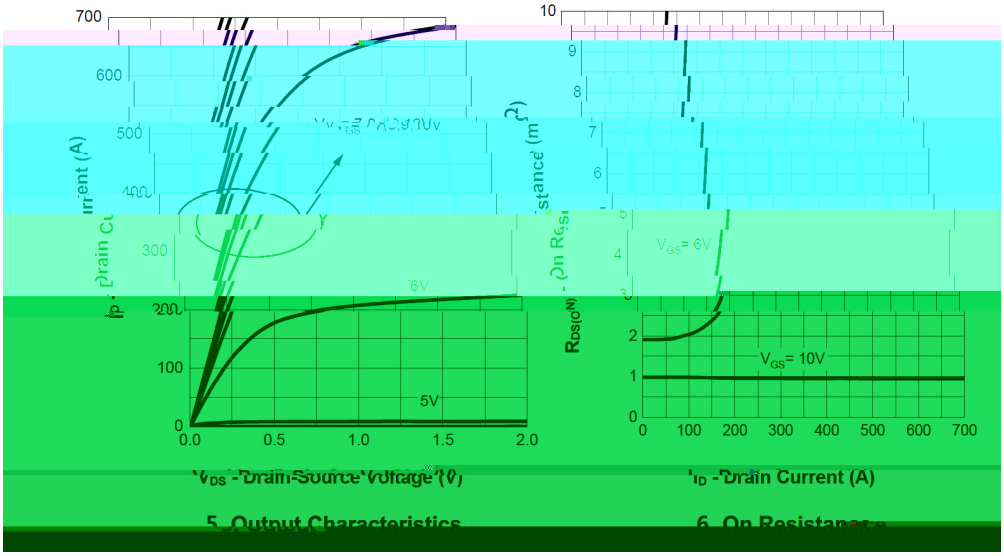
## / Electrical Characteristics(Ta=25 )

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Total Gate Charge | $Q_g$ | $V_{GS}$=10V $V_{DS}$=50V $I_D$=50A | | 176 | | nC |
| Gate Source Charge | $Q_{gs}$ | | | 75 | | |
| Gate Drain Charge | $Q_{gd}$ | | | 32 | | |
| Turn-On Delay Time | $t_{d(on)}$ | $V_{GS}$=10V $V_{DS}$=50V $R_L$=1 $R_{GEN}$=3.9 $I_{DS}$=50A | | 46 | | nS |
| Turn-On Rise Time | $t_r$ | | | 94 | | |
| Turn-Off Delay Time | $t_{d(off)}$ | | | 69 | | |
| Turn-Off Fall Time | $t_f$ | | | 70 | | |

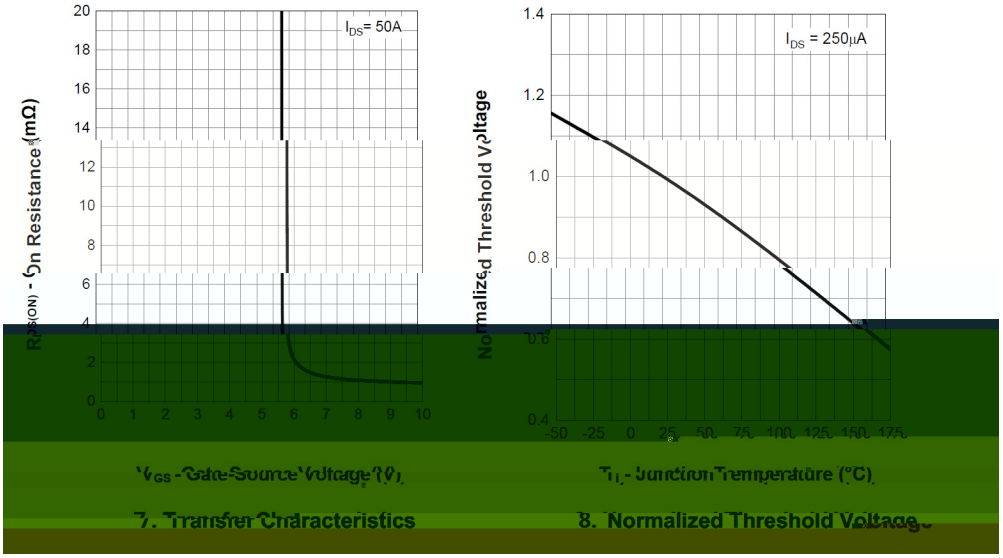
## / Electrical Characteristic Curve



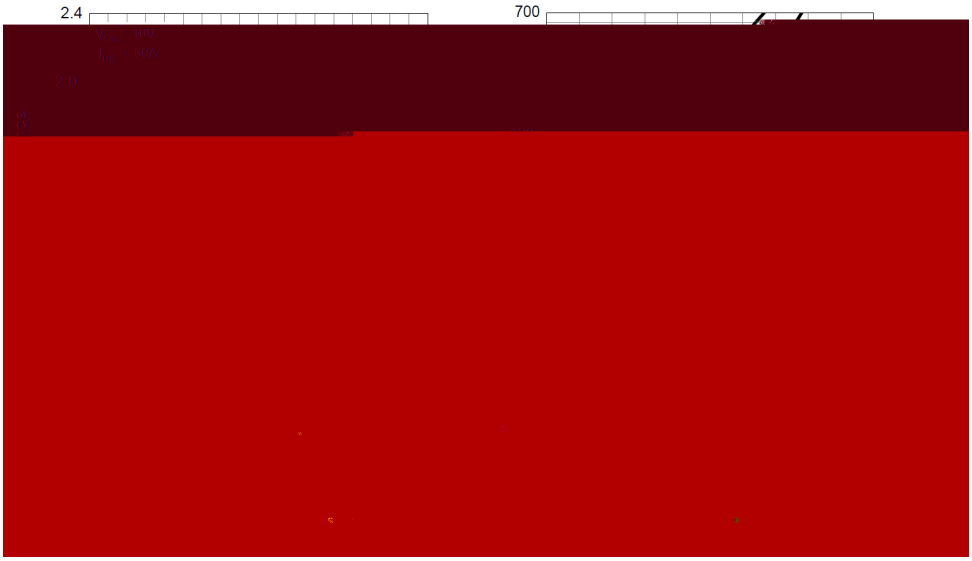



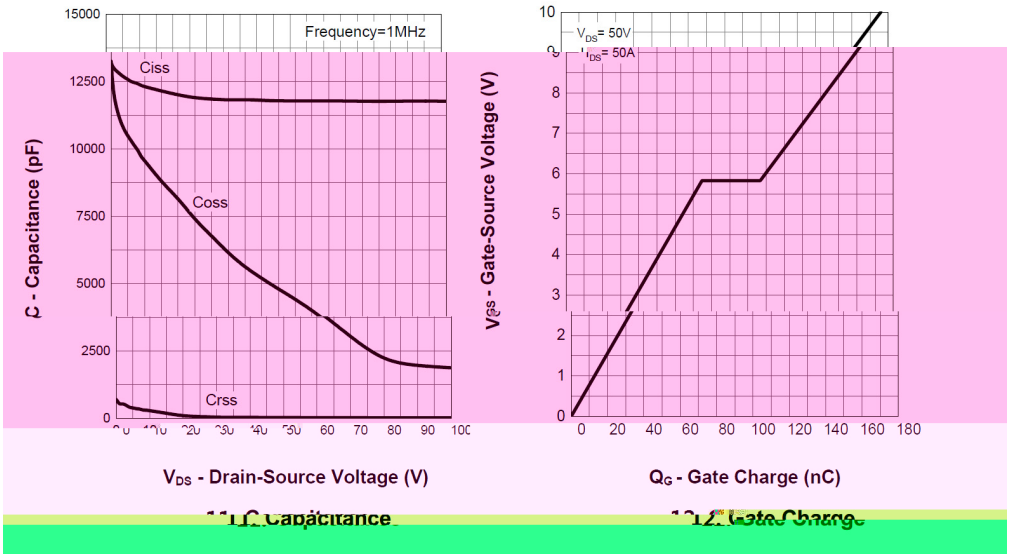



## / Electrical Characteristic Curve



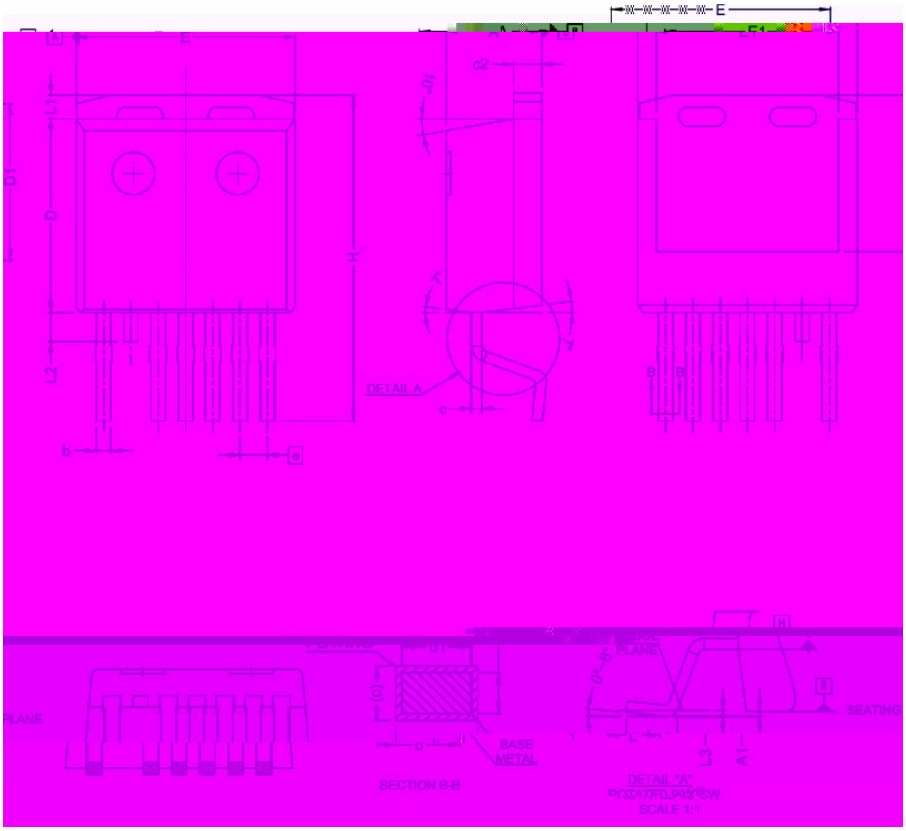

7. Transfer Characteristics　　8. Normalized Threshold Voltage



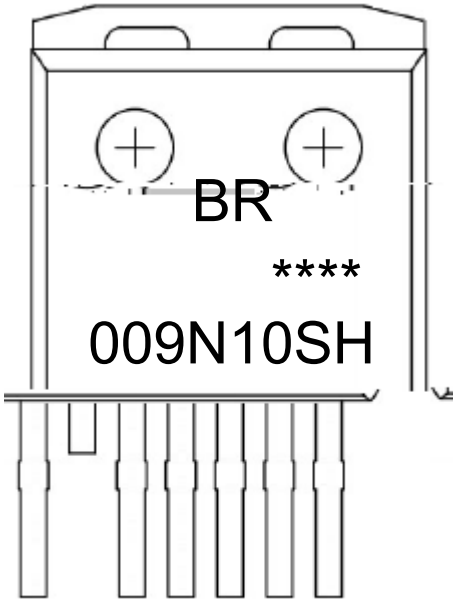



11. C Capacitance　　12. Gate Charge

## / Package Dimensions



## / Marking Instructions




BR

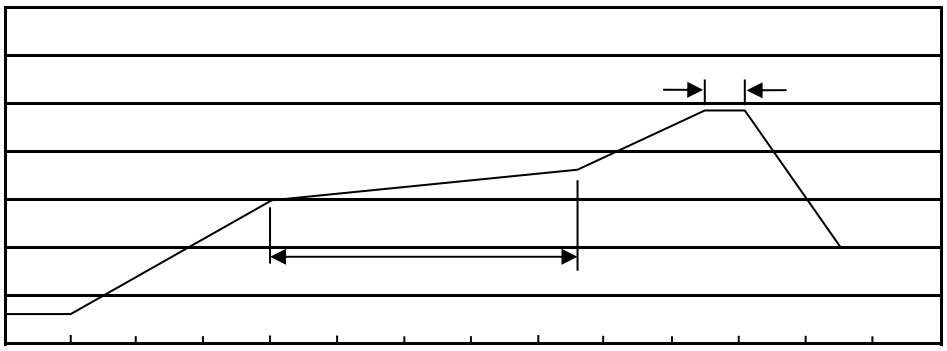
009N10SH

****

Note:

| | |
|---|---|
| BR: | Company Code |
| 009N10SH: | Product Type Code |
| ****: | Lot No. Code, code change with Lot No. |

## ( ) /



| | | |
|---|---|---|
| | | Note: |
| 1 | 150 180 60 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 5±0.5sec; | 2.Peak Temp.:245±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 mm³) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| TO-263-7LA | 800 | 1 | 800 | 6 | 4,800 | 13 ×24 | 360×360×50 | 380×335×366 |

## / Notices

All information provided in this document is subject to legal disclaimers.