

/ Descriptions

VRW5609    M M    Q    P R V    j    ǒ    Z    1

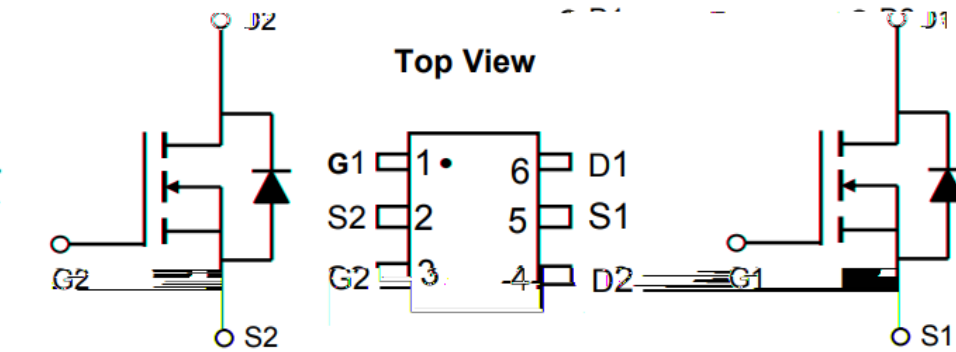
/ Features

ǒ    ŷ    i    M    ɔ    ɳ    i    l    ó    B    i    ñ    f    β

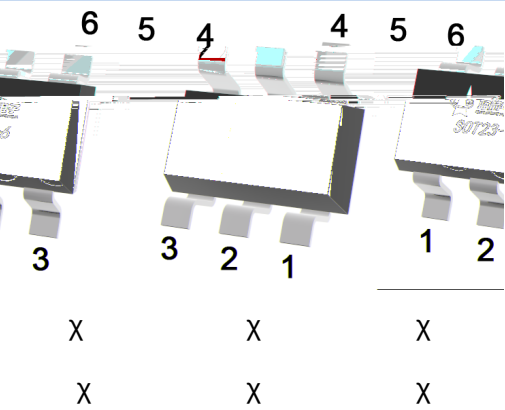
/ Applications

ǒ    ǒ    ɔ    ǒ    1    ɳ    i    ʒ    "    A    ã    †    =    ɔ    -    ẽ    ɔ    ɹ    l

/ Equivalent Circuit



/ Pinning



/ Marking

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

/ Absolute Maximum Ratings(Ta=25 )

| V <sub>DD</sub> |   | I <sub>N</sub> | V <sub>IO</sub> | D <sub>H</sub> |
|-----------------|---|----------------|-----------------|----------------|
|                 |   |                |                 |                |
|                 |   |                |                 |                |
|                 |   |                |                 |                |
|                 |   |                |                 |                |
|                 |   |                |                 |                |
|                 |   |                |                 |                |
|                 | ≤ | θ              |                 |                |
|                 |   |                |                 |                |
|                 |   |                |                 |                |

/ Electrical Characteristics(Ta=25 )

| V <sub>DD</sub> | I <sub>N</sub> | Δ <sub>1</sub> T | ω <sub>n</sub> Θ | ε <sub>3</sub> Θ | ω <sub>z</sub> Θ | D <sub>H</sub> |
|-----------------|----------------|------------------|------------------|------------------|------------------|----------------|
|                 |                |                  |                  |                  |                  |                |
|                 |                |                  |                  |                  |                  |                |
|                 |                |                  |                  |                  |                  |                |
|                 |                |                  |                  |                  |                  |                |
|                 |                |                  |                  |                  |                  |                |
|                 |                |                  |                  |                  |                  |                |
|                 |                |                  |                  |                  |                  |                |

/ Electrical Characteristics(Ta=25 )

| v "Q | γ N | ⌋   ⌋ | ω η Θ | ε 3 Θ | ω z Θ | D H |
|------|-----|-------|-------|-------|-------|-----|
|      |     |       |       |       |       |     |
|      |     |       |       |       |       |     |
|      |     |       |       |       |       |     |
|      |     |       |       |       |       | Ω   |
|      |     |       |       |       |       |     |
|      |     |       |       |       |       |     |
|      |     |       |       |       |       |     |
|      |     |       |       |       |       |     |
|      |     |       |       |       |       |     |
|      |     |       |       |       |       |     |
|      |     |       |       |       |       |     |
|      |     |       |       |       |       |     |

## / Electrical Characteristic Curve

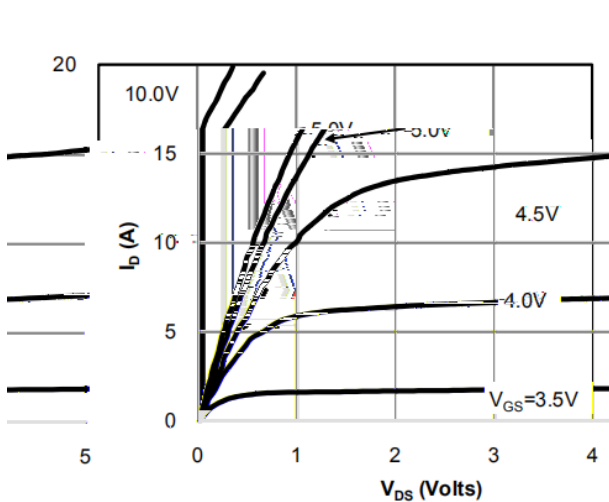


Fig 1: On-Region Characteristics

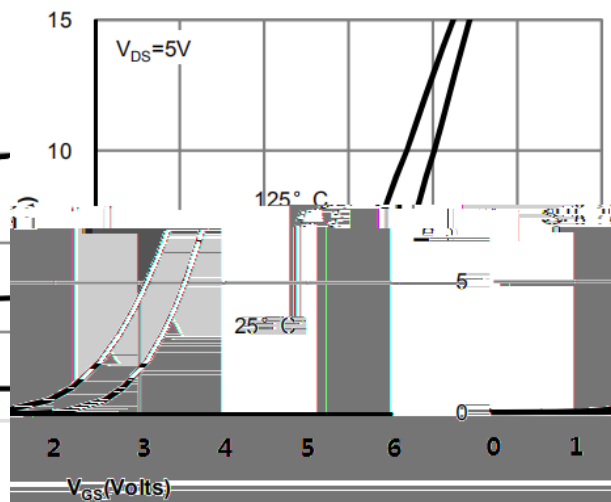


Figure 2: Transfer Characteristics

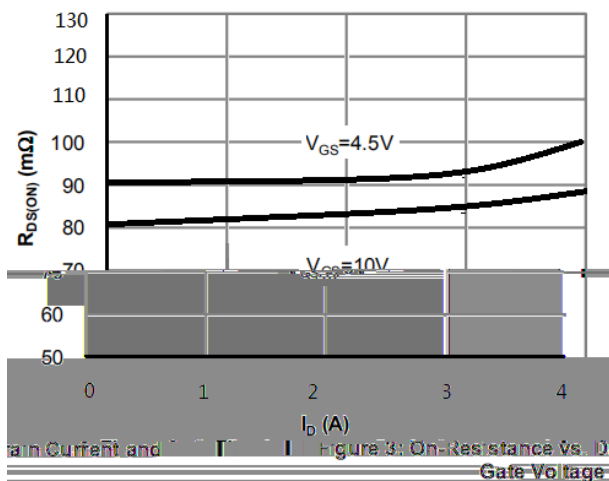


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

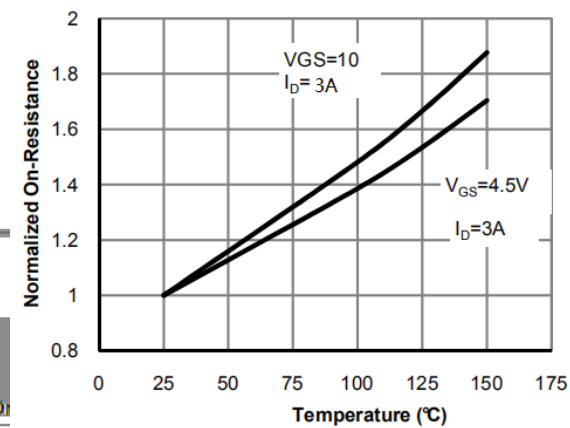


Figure 4: On-Resistance vs. Junction Temperature

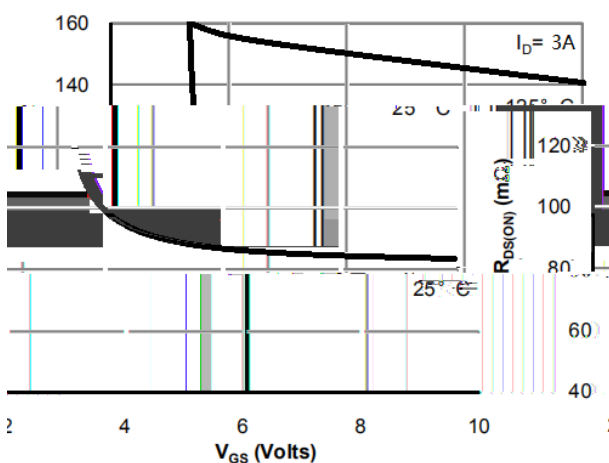


Figure 5: On-Resistance vs. Gate-Source Voltage

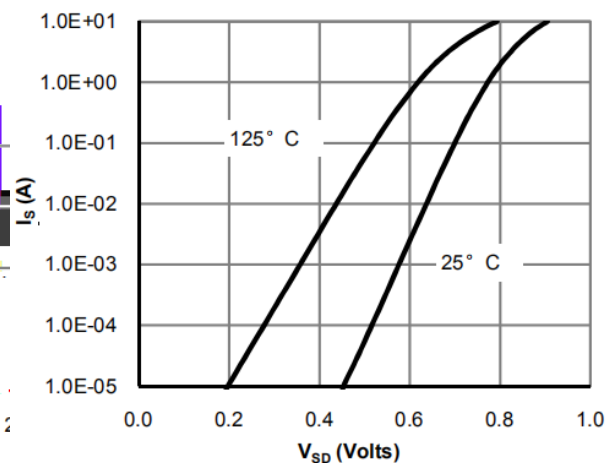


Figure 6: Body-Diode Characteristics

## / Electrical Characteristic Curve

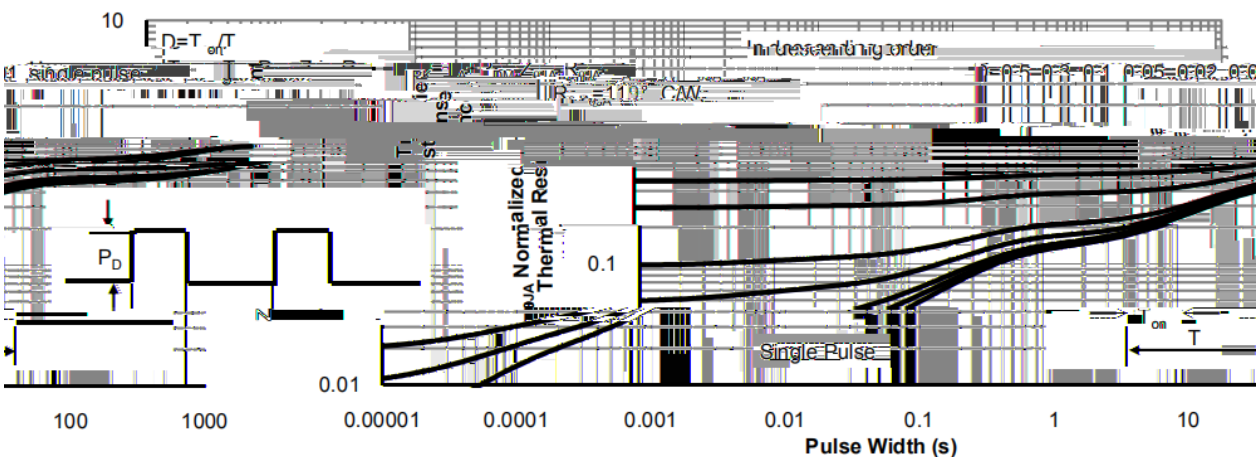
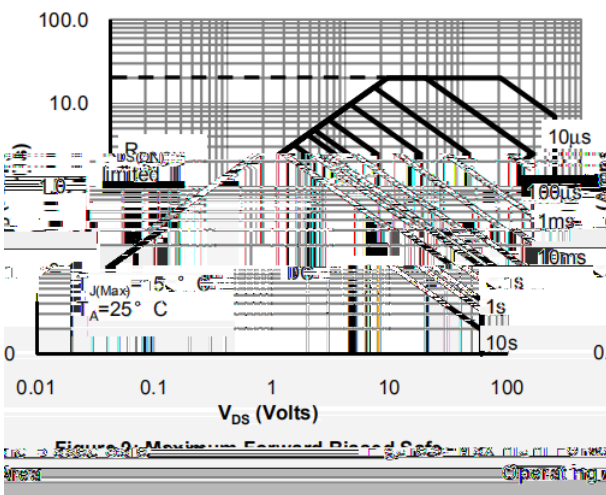
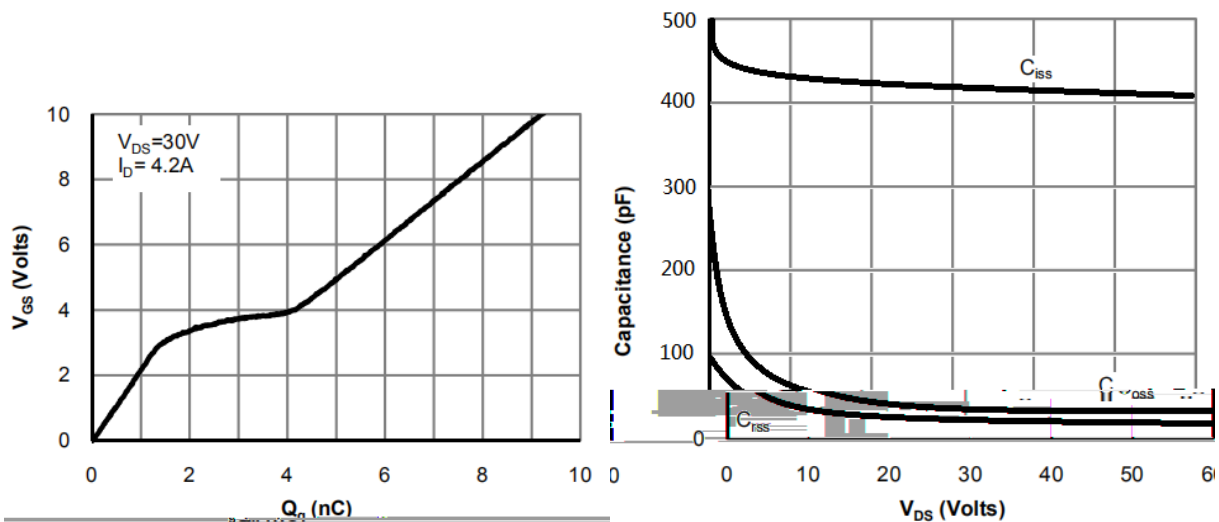
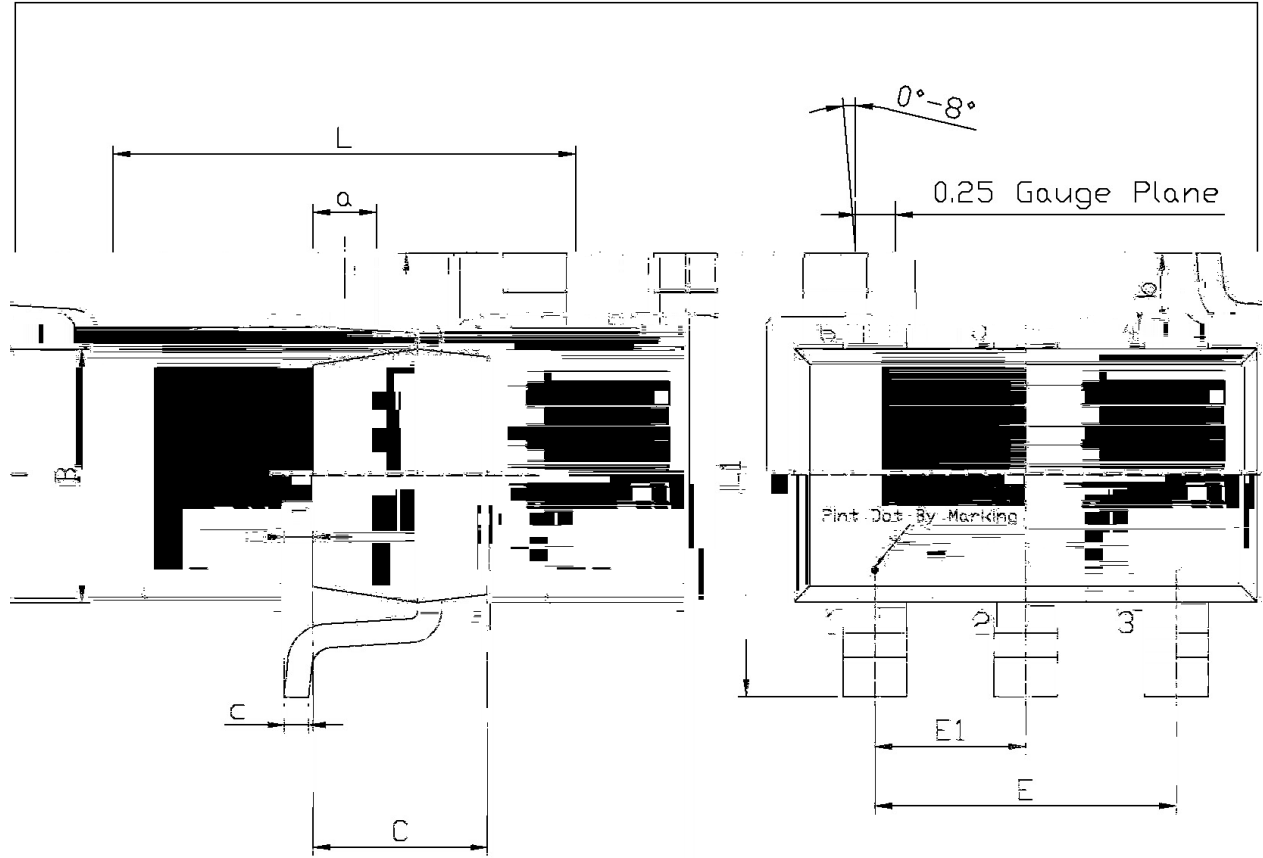


Figure 10 Normalized Maximum Transient Thermal Impedance

/ Package Dimensions



Unit: mm

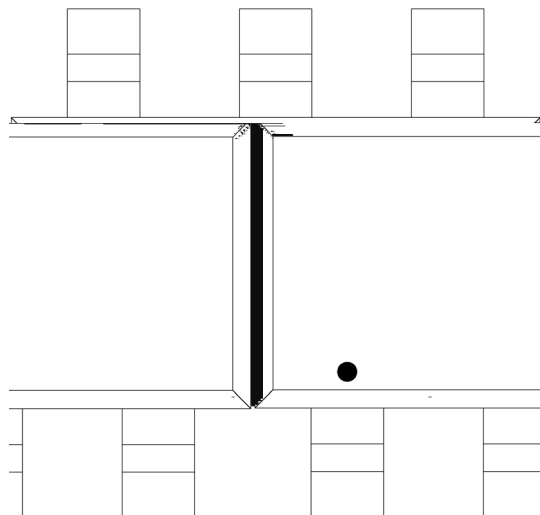
| Symbol | Dimensions In Millimeters |      |
|--------|---------------------------|------|
|        | Min                       | Max  |
| E1     | 0.85                      | 1.05 |
| a      | 0.35                      | 0.50 |
| c      | 0.10                      | 0.20 |
| b      | 0.35                      | 0.55 |
| F      | 0                         | 0.15 |

| Symbol | Dimensions In Millimeter |      |
|--------|--------------------------|------|
|        | Min                      | Max  |
| L      | 2.82                     | 3.32 |
| B      | 1.50                     | 1.70 |
| C      | 0.90                     | 1.30 |
| L1     | 2.60                     | 3.00 |
| E      | 1.80                     | 2.00 |

23-6

SOT

## / Marking Instructions


$$\begin{array}{lcl} & & \chi \\ K\chi & \cong & \mathbb{Z}^N \Gamma \\ \chi & \cong & \mathbb{Z}^N \Gamma \\ \chi & \cong & \mathbb{Z}^1 \Gamma \cong \mathbb{Z}^N \Psi \end{array}$$
$$\begin{array}{c} \chi \\ \chi \\ \chi \end{array}$$

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

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

” X  
    ♫ □ ŷ      K      † i`H      K      †  
Š Œ □ ŷ      ° † i`H `Y ʌ ʌ °      ° †      °  
    i` ʌ, ɔ    ŷ ʌ K      †      †

/ Resistance to Soldering Heat Test Conditions

□ ŷ X      ° †      `H X      °

/ Packaging SPEC.

o` γ