N-Channel Enhancement Mode Field Effect Transistor

2N7000, 2N7002, NDS7002A

Description

These N-channel enhancement mode field effect transistors are produced using onsemi’s proprietary, high cell density, DMOS technology. These products have been designed to minimize on-state resistance while providing rugged, reliable, and fast switching performance. These products are particularly suited for low-voltage, low-current applications, such as small servo motor control, power MOSFET gate drivers, and other switching applications.

Features

- High Density Cell Design for Low $R_{DS(on)}$
- Voltage Controlled Small Signal Switch
- Rugged and Reliable
- High Saturation Current Capability
- ESD Protection Level: HBM > 100 V, CDM > 2 kV
- This Device is Pb-Free and Halogen Free

MARKING DIAGRAM

1 - Gate
2 - Source
3 - Drain

1 – Source
2 – Gate
3 – Drain

SOT-23
CASE 135AR

MARKING DIAGRAM

$Y&Z&B$
2N7000

$Y$ = onsemi Logo
$&Z$ = Assembly Plant Code
$&B$ = Date Code
2N7000 = Specific Device Code

MARKING DIAGRAM

702M$

702 = Specific Device Code
M = Date Code
$ = Pb-Free Package

(Note: Microdot may be in either location)

ORDERING INFORMATION

See detailed ordering and shipping information on page 7 of this data sheet.
## ABSOLUTE MAXIMUM RATINGS

Values are at \( T_C = 25^\circ C \) unless otherwise noted.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2N7000</td>
<td>2N7002</td>
<td>NDS7002A</td>
</tr>
<tr>
<td>( V_{DSS} )</td>
<td>Drain–Source Voltage</td>
<td>60</td>
<td>V</td>
</tr>
<tr>
<td>( V_{DGR} )</td>
<td>Drain–Gate Voltage (( R_{GS} \leq 1 \text{ MW} ))</td>
<td>60</td>
<td>V</td>
</tr>
<tr>
<td>( V_{GSS} )</td>
<td>Gate–Source Voltage – Continuous</td>
<td>±20</td>
<td>V</td>
</tr>
<tr>
<td></td>
<td>Gate–Source Voltage – Non Repetitive (( t_p &lt; 50 \text{ ms} ))</td>
<td>±40</td>
<td></td>
</tr>
<tr>
<td>( I_D )</td>
<td>Maximum Drain Current – Continuous</td>
<td>200</td>
<td>mA</td>
</tr>
<tr>
<td></td>
<td>Maximum Drain Current – Pulsed</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>( P_D )</td>
<td>Maximum Power Dissipation Derated above 25(^\circ)C</td>
<td>400</td>
<td>mW</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.2</td>
<td>mW/(^\circ)C</td>
</tr>
<tr>
<td>( T_J, T_{STG} )</td>
<td>Operating and Storage Temperature Range</td>
<td>−55 to 150</td>
<td></td>
</tr>
<tr>
<td>( T_L )</td>
<td>Maximum Lead Temperature for Soldering Purposes, 1/16–inch from Case for 10 s</td>
<td>300</td>
<td>°C</td>
</tr>
</tbody>
</table>

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

## THERMAL CHARACTERISTICS

Values are at \( T_C = 25^\circ C \) unless otherwise noted.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Value</th>
<th>Unit</th>
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</thead>
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<tr>
<td></td>
<td>2N7000</td>
<td>2N7002</td>
<td>NDS7002A</td>
</tr>
<tr>
<td>( R_{\theta JA} )</td>
<td>Thermal Resistance, Junction to Ambient</td>
<td>312.5</td>
<td>°C/W</td>
</tr>
</tbody>
</table>

## ELECTRICAL CHARACTERISTICS

Values are at \( T_C = 25^\circ C \) unless otherwise noted.

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<thead>
<tr>
<th>Symbol</th>
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<th>Conditions</th>
<th>Type</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2N7000</td>
<td>2N7002</td>
<td>NDS7002A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( V_{GS(th)} )</td>
<td>Gate Threshold Voltage</td>
<td>( V_{DS} = V_{GS}, I_D = 1 \text{ mA} )</td>
<td>All</td>
<td>60</td>
<td>–</td>
<td>–</td>
<td>V</td>
</tr>
<tr>
<td>( I_{DSS} )</td>
<td>Zero Gate Voltage Drain Current</td>
<td>( V_{DS} = 48 \text{ V}, V_{GS} = 0 \text{ V} )</td>
<td>2N7000</td>
<td>–</td>
<td>–</td>
<td>1</td>
<td>mA</td>
</tr>
<tr>
<td></td>
<td>( V_{DS} = 48 \text{ V}, V_{GS} = 0 \text{ V}, T_C = 125^\circ \text{ C} )</td>
<td>–</td>
<td>–</td>
<td>1</td>
<td>mA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>( V_{DS} = 60 \text{ V}, V_{GS} = 0 \text{ V} )</td>
<td>2N7002</td>
<td>–</td>
<td>–</td>
<td>1</td>
<td>mA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( V_{DS} = 60 \text{ V}, V_{GS} = 0 \text{ V}, T_C = 125^\circ \text{ C} )</td>
<td>–</td>
<td>–</td>
<td>0.5</td>
<td>mA</td>
<td></td>
<td></td>
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<tr>
<td>( I_{GSSF} )</td>
<td>Gate – Body Leakage, Forward</td>
<td>( V_{GS} = 15 \text{ V}, V_{DS} = 0 \text{ V} )</td>
<td>2N7000</td>
<td>–</td>
<td>–</td>
<td>10</td>
<td>nA</td>
</tr>
<tr>
<td></td>
<td>( V_{GS} = 20 \text{ V}, V_{DS} = 0 \text{ V} )</td>
<td>2N7002</td>
<td>–</td>
<td>–</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( I_{GSSR} )</td>
<td>Gate – Body Leakage, Reverse</td>
<td>( V_{GS} = −15 \text{ V}, V_{DS} = 0 \text{ V} )</td>
<td>2N7000</td>
<td>–</td>
<td>–</td>
<td>−10</td>
<td>nA</td>
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<tr>
<td></td>
<td>( V_{GS} = −20 \text{ V}, V_{DS} = 0 \text{ V} )</td>
<td>2N7002</td>
<td>–</td>
<td>–</td>
<td>−100</td>
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## OFF CHARACTERISTICS

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<th>Type</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2N7000</td>
<td>2N7002</td>
<td>NDS7002A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( V_{GS(In)} )</td>
<td>Gate Threshold Voltage</td>
<td>( V_{DS} = V_{GS}, I_D = 1 \text{ mA} )</td>
<td>2N7000</td>
<td>0.8</td>
<td>2.1</td>
<td>3</td>
<td>V</td>
</tr>
<tr>
<td></td>
<td>( V_{DS} = V_{GS}, I_D = 250 \mu A )</td>
<td>2N7002</td>
<td>1</td>
<td>2.1</td>
<td>2.5</td>
<td></td>
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www.onsemi.com  2
# ELECTRICAL CHARACTERISTICS (continued)

Values are at $T_C = 25^\circ\text{C}$ unless otherwise noted.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Conditions</th>
<th>Type</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
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<td></td>
<td>ON CHARACTERISTICS</td>
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<td></td>
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<tr>
<td>$R_{\text{DS(on)}}$</td>
<td>Static Drain–Source On–Resistance</td>
<td>$V_{\text{GS}} = 10\text{ V}, I_D = 500\text{ mA}$</td>
<td>2N7000</td>
<td>−</td>
<td>1.2</td>
<td>5</td>
<td>Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 10\text{ V}, I_D = 500\text{ mA}, T_C = 125^\circ\text{C}$</td>
<td></td>
<td></td>
<td>−</td>
<td>1.9</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 4.5\text{ V}, I_D = 75\text{ mA}$</td>
<td></td>
<td></td>
<td>−</td>
<td>1.8</td>
<td>5.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 10\text{ V}, I_D = 500\text{ mA}$</td>
<td>2N7002</td>
<td>−</td>
<td>1.2</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 10\text{ V}, I_D = 500\text{ mA}, T_C = 100^\circ\text{C}$</td>
<td></td>
<td></td>
<td>−</td>
<td>1.7</td>
<td>13.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 5\text{ V}, I_D = 50\text{ mA}$</td>
<td></td>
<td></td>
<td>−</td>
<td>1.7</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 5\text{ V}, I_D = 50\text{ mA}, T_C = 100^\circ\text{C}$</td>
<td></td>
<td></td>
<td>−</td>
<td>2.4</td>
<td>13.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 10\text{ V}, I_D = 500\text{ mA}$</td>
<td>NDS7002A</td>
<td>−</td>
<td>1.2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 10\text{ V}, I_D = 500\text{ mA}, T_C = 125^\circ\text{C}$</td>
<td></td>
<td></td>
<td>−</td>
<td>1.7</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 5\text{ V}, I_D = 50\text{ mA}$</td>
<td></td>
<td></td>
<td>−</td>
<td>1.7</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 5\text{ V}, I_D = 50\text{ mA}, T_C = 125^\circ\text{C}$</td>
<td></td>
<td></td>
<td>−</td>
<td>2.8</td>
<td>5</td>
</tr>
<tr>
<td>$V_{\text{DS(on)}}$</td>
<td>Drain–Source On–Voltage</td>
<td>$V_{\text{GS}} = 10\text{ V}, I_D = 500\text{ mA}$</td>
<td>2N7000</td>
<td>−</td>
<td>0.6</td>
<td>2.5</td>
<td>V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 4.5\text{ V}, I_D = 75\text{ mA}$</td>
<td></td>
<td></td>
<td>−</td>
<td>0.14</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 10\text{ V}, I_D = 500\text{ mA}$</td>
<td>2N7002</td>
<td>−</td>
<td>0.6</td>
<td>3.75</td>
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<tr>
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<td>$V_{\text{GS}} = 5.0\text{ V}, I_D = 50\text{ mA}$</td>
<td></td>
<td></td>
<td>−</td>
<td>0.09</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 10\text{ V}, I_D = 500\text{ mA}$</td>
<td>NDS7002A</td>
<td>−</td>
<td>0.6</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{GS}} = 5.0\text{ V}, I_D = 50\text{ mA}$</td>
<td></td>
<td></td>
<td>−</td>
<td>0.09</td>
<td>0.15</td>
</tr>
<tr>
<td>$g_{\text{FS}}$</td>
<td>Forward Transconductance</td>
<td>$V_{\text{DS}} = 10\text{ V}, I_D = 200\text{ mA}$</td>
<td>2N7000</td>
<td>100</td>
<td>320</td>
<td>−</td>
<td>mS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{DS}} \geq 2V_{\text{DS(on)}}, I_D = 200\text{ mA}$</td>
<td>2N7002</td>
<td>80</td>
<td>320</td>
<td>−</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_{\text{DS}} \geq 2V_{\text{DS(on)}}, I_D = 200\text{ mA}$</td>
<td>NDS7002A</td>
<td>80</td>
<td>320</td>
<td>−</td>
<td></td>
</tr>
</tbody>
</table>

**DYNAMIC CHARACTERISTICS**

| $C_{\text{iss}}$ | Input Capacitance | $V_{\text{DD}} = 25\text{ V}, V_{\text{GS}} = 0\text{ V}, f = 1.0\text{ MHz}$ | All | − | 20 | 50 | pF |
| $C_{\text{oss}}$ | Output Capacitance | | All | − | 11 | 25 | |
| $C_{\text{rss}}$ | Reverse Transfer Capacitance | | All | − | 4 | 5 | |
| $t_{\text{on}}$ | Turn–On Time | $V_{\text{DD}} = 15\text{ V}, R_L = 25\text{ Ω}, I_D = 500\text{ mA}, V_{\text{GS}} = 10\text{ V}, R_{\text{GEN}} = 25\text{ Ω}$ | 2N7000 | − | − | 10 | ns |
| | | $V_{\text{DD}} = 30\text{ V}, R_L = 150\text{ Ω}, I_D = 200\text{ mA}, V_{\text{GS}} = 10\text{ V}, R_{\text{GEN}} = 25\text{ Ω}$ | 2N7002 | − | − | 20 | |
| | | $V_{\text{DD}} = 30\text{ V}, R_L = 150\text{ Ω}, I_D = 200\text{ mA}, V_{\text{GS}} = 10\text{ V}, R_{\text{GEN}} = 25\text{ Ω}$ | NDS7002A | − | − | 20 | |
| $t_{\text{off}}$ | Turn–Off Time | $V_{\text{DD}} = 15\text{ V}, R_L = 25\text{ Ω}, I_D = 500\text{ mA}, V_{\text{GS}} = 10\text{ V}, R_{\text{GEN}} = 25\text{ Ω}$ | 2N7000 | − | − | 10 | ns |
| | | $V_{\text{DD}} = 30\text{ V}, R_L = 150\text{ Ω}, I_D = 200\text{ mA}, V_{\text{GS}} = 10\text{ V}, R_{\text{GEN}} = 25\text{ Ω}$ | 2N7002 | − | − | 20 | |
| | | $V_{\text{DD}} = 30\text{ V}, R_L = 150\text{ Ω}, I_D = 200\text{ mA}, V_{\text{GS}} = 10\text{ V}, R_{\text{GEN}} = 25\text{ Ω}$ | NDS7002A | − | − | 20 | |

**DRAIN–SOURCE DIODE CHARACTERISTICS AND MAXIMUM RATINGS**

| $I_S$ | Maximum Continuous Drain–Source Diode Forward Current | 2N7000 | − | − | 115 | mA |
| | | NDS7002A | − | − | 280 | |
2N7000, 2N7002, NDS7002A

ELECTRICAL CHARACTERISTICS (continued)
Values are at TC = 25°C unless otherwise noted.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Conditions</th>
<th>Type</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
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<td>DRAIN–SOURCE DIODE CHARACTERISTICS AND MAXIMUM RATINGS</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>ISM</td>
<td>Maximum Pulsed Drain–Source Diode Forward Current</td>
<td>2N7002, NDS7002A</td>
<td>–</td>
<td>–</td>
<td>0.8</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>VSD</td>
<td>Drain–Source Diode Forward Voltage</td>
<td>VGS = 0 V, IS = 115 mA (Note 1)</td>
<td>2N7002</td>
<td>–</td>
<td>0.88</td>
<td>1.5</td>
<td>V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VGS = 0 V, IS = 400 mA (Note 1)</td>
<td>NDS7002A</td>
<td>–</td>
<td>0.88</td>
<td>1.2</td>
<td>V</td>
</tr>
</tbody>
</table>

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

1. Pulse test: Pulse Width ≤ 300 μs, Duty Cycle ≤ 2%

TYPICAL PERFORMANCE CHARACTERISTICS

Figure 1. On–Region Characteristics

Figure 2. On–Resistance Variation with Gate Voltage and Drain Current

Figure 3. On–Resistance Variation with Temperature

Figure 4. On–Resistance Variation with Drain Current and Temperature
TYPICAL PERFORMANCE CHARACTERISTICS (CONTINUED)

Figure 5. Transfer Characteristics

Figure 6. Gate Threshold Variation with Temperature

Figure 7. Breakdown Voltage Variation with Temperature

Figure 8. Body Diode Forward Voltage Variation with

Figure 9. Capacitance Characteristics

Figure 10. Gate Charge Characteristics
Figure 11. Switching Test Circuit

Figure 12. Switching Waveforms

Figure 13. 2N7000 Maximum Safe Operating Area

Figure 14. 2N7002 Maximum Safe Operating Area

Figure 15. NDS7002A Maximum Safe Operating Area
TYPICAL PERFORMANCE CHARACTERISTICS (CONTINUED)

**Figure 16. TO–92, 2N7000 Transient Thermal Response Curve**

![Graph showing transient thermal response curve for TO–92, 2N7000](image)

**Figure 17. SOT–23, 2N7002 / NDS7002A Transient Thermal Response Curve**

![Graph showing transient thermal response curve for SOT–23, 2N7002 / NDS7002A](image)

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Marking</th>
<th>Package</th>
<th>Packing Method†</th>
<th>Min Order Qty / Immediate Pack Qty</th>
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<td>2N7000</td>
<td>TO–92 3L (Pb–Free)</td>
<td>Bulk</td>
<td>10000 / 1000</td>
</tr>
<tr>
<td>2N7000–D75Z</td>
<td></td>
<td></td>
<td>Tape and Reel</td>
<td>2000 / 2000</td>
</tr>
<tr>
<td>2N7002</td>
<td>702</td>
<td>SOT–23 3L (Pb–Free)</td>
<td>Tape and Reel</td>
<td>3000 / 3000</td>
</tr>
<tr>
<td>NDS7002A</td>
<td>712</td>
<td></td>
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<td>3000 / 3000</td>
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</table>

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.
MECHANICAL CASE OUTLINE
PACKAGE DIMENSIONS

TO-92 3 4.825x4.76
CASE 135AN
ISSUE 0

DATE 31 JUL 2016

NOTES: UNLESS OTHERWISE SPECIFIED
A) DRAWING WITH REFERENCE TO JEDEC TO–92 RECOMMENDATIONS.
B) ALL DIMENSIONS ARE IN MILLIMETERS.
C) DRAWING CONFORMS TO ASME Y14.5M–2009.

DOCUMENT NUMBER: 98AON13880G
DESCRIPTION: TO–92 3 4.825X4.76

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www.onsemi.com
TO-92 3 4.83x4.76 LEADFORMED
CASE 135AR
ISSUE O

DATE 30 SEP 2016

MECHANICAL CASE OUTLINE
PACKAGE DIMENSIONS

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NOTES: UNLESS OTHERWISE SPECIFIED
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B) ALL DIMENSIONS ARE IN MILLIMETERS.
C) DRAWING CONFORMS TO ASME Y14.5M-1994

DOCUMENT NUMBER: 98AON13879G
DESCRIPTION: TO-92 3 4.83X4.76 LEADFORMED

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**MECHANICAL CASE OUTLINE**

**PACKAGE DIMENSIONS**

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**SOT-23 (TO-236)**

CASE 318

ISSUE AT

DATE 01 MAR 2023

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**NOTES:**


2. CONTROLLING DIMENSION MILLIMETERS

3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF THE BASE MATERIAL.

4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

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<table>
<thead>
<tr>
<th>DIM</th>
<th>MILLIMETERS</th>
<th>INCHES</th>
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<td>MIN.</td>
<td>NOM.</td>
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<td>L</td>
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<tr>
<td>H2</td>
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</tr>
<tr>
<td>T</td>
<td>0°</td>
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</tbody>
</table>

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**STYLES ON PAGE 2**

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MECHANICAL CASE OUTLINE

PACKAGE DIMENSIONS

SOT–23 (TO–236)
CASE 318
ISSUE AT

DATE 01 MAR 2023

STYLE 1 THRU 5:
CANCELLED

STYLE 6:
PIN 1. BASE
2. EMITTER
3. COLLECTOR

STYLE 7:
PIN 1. EMITTER
2. BASE
3. Collector

STYLE 8:
PIN 1. ANODE
2. NO CONNECTION
3. CATHODE

STYLE 9:
PIN 1. ANODE
2. ANODE
3. CATHODE

STYLE 10:
PIN 1. DRAIN
2. SOURCE
3. GATE

STYLE 11:
PIN 1. ANODE
2. CATHODE
3. CATHODE-ANODE

STYLE 12:
PIN 1. EMITTER
2. BASE
3. COLLECTOR

STYLE 13:
PIN 1. ANODE
2. CATHODE
3. CATHODE

STYLE 14:
PIN 1. ANODE
2. CATHODE
3. CATHODE

STYLE 15:
PIN 1. ANODE
2. ANODE
3. CATHODE

STYLE 16:
PIN 1. ANODE
2. CATHODE
3. CATHODE

STYLE 17:
PIN 1. NO CONNECTION
2. CATHODE
3. CATHODE

STYLE 18:
PIN 1. NO CONNECTION
2. ANODE
3. NO CONNECTION

STYLE 19:
PIN 1. CATHODE
2. ANODE
3. CATHODE

STYLE 20:
PIN 1. CATHODE
2. ANODE
3. GATE

STYLE 21:
PIN 1. GATE
2. SOURCE
3. DRAIN

STYLE 22:
PIN 1. RETURN
2. OUTPUT
3. INPUT

STYLE 23:
PIN 1. ANODE
2. CATHODE
3. CATHODE

STYLE 24:
PIN 1. SOURCE
2. DRAIN
3. GATE

STYLE 25:
PIN 1. ANODE
2. CATHODE
3. GATE

STYLE 26:
PIN 1. ANODE
2. CATHODE
3. NO CONNECTION

STYLE 27:
PIN 1. CATHODE
2. CATHODE
3. CATHODE

STYLE 28:
PIN 1. ANODE
2. ANODE
3. ANODE

MECHANICAL CASE OUTLINE
PACKAGE DIMENSIONS

DOCUMENT NUMBER: 98ASB42226B
DESCRIPTION: SOT–23 (TO–236)

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