

## **DESCRIPTION**

The AM3403 is available in SOT-23S package.

## ORDERING INFORMATION

| Package Type                   | Part Number             |             |  |  |
|--------------------------------|-------------------------|-------------|--|--|
| SOT-23S                        | E3S                     | AM3403E3SR  |  |  |
| SPQ: 3,000pcs/Reel             | E35                     | AM3403E3SVR |  |  |
| Note                           | V: Halogen free Package |             |  |  |
|                                | R: Tape & Reel          |             |  |  |
| AiT provides all RoHS products |                         |             |  |  |

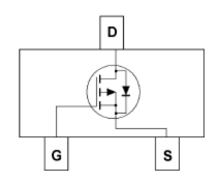
#### **FEATURES**

- -30V/-3.2A,  $R_{DS(ON)}$ =55mΩ(MAX) @V<sub>GS</sub>=-10V.  $R_{DS(ON)}$ =70mΩ(MAX) @V<sub>GS</sub>=-4.5V.  $R_{DS(ON)}$ =120mΩ(MAX) @V<sub>GS</sub>=-2.5V.
- Super High dense cell design for extremely low RDS(ON)
- Reliable and Rugged
- Available in SOT-23S Package

#### **APPLICATION**

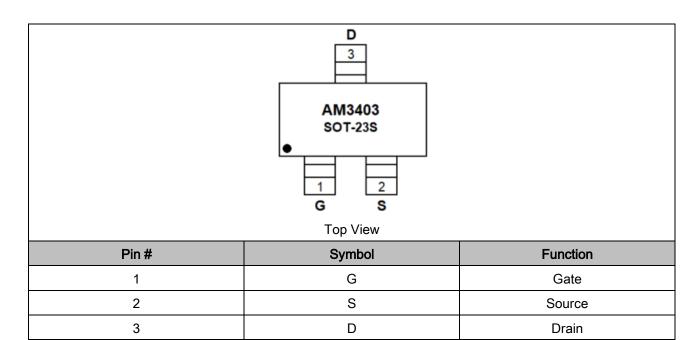
- Power Management
- Portable Equipment and Battery Powered Systems.

## PIN DESCRIPTION



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# PIN DESCRIPTION



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## **ABSOLUTE MAXIMUM RATINGS**

#### T<sub>A</sub>= 25°C, unless otherwise noted

| V <sub>DS</sub> , Drain-Source Voltage     | -30V  |
|--|-------|
| V <sub>GS</sub> , Gate-Source Voltage      | ±12V  |
| I <sub>D</sub> , Drain Current- Continuous | -3.2A |

Stress beyond above listed "Absolute Maximum Ratings" may lead permanent damage to the device. These are stress ratings only and operations of the device at these or any other conditions beyond those indicated in the operational sections of the specifications are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

## **ELECTRICAL CHARACTERISTICS**

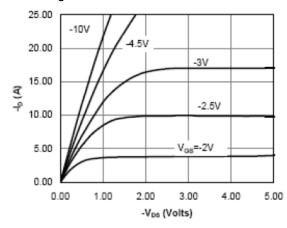
T<sub>A</sub>=25°C, unless otherwise noted

| Parameter  | Symbol              | Conditions  | Min  | Тур. | Max  | Units |  |  |
|--|---------------------|---|------|------|------|-------|--|--|
| Off Characteristics                                    |                     |   |      |      |      |       |  |  |
| Drain to Source Breakdown<br>Voltage                   | BV <sub>DSS</sub>   | V <sub>GS</sub> =0V, I <sub>D</sub> =-250μA               | -30  | -    | -    | V     |  |  |
| Zero-Gate Voltage Drain Current                        | I <sub>DSS</sub>    | V <sub>DS</sub> =-24V, V <sub>GS</sub> =0V                | -    | -    | -1   | μA    |  |  |
| Gate Body Leakage Current, Forward                     | I <sub>GSSF</sub>   | V <sub>GS</sub> =12V, V <sub>DS</sub> =0V                 | -    | -    | 100  | nA    |  |  |
| Gate Body Leakage Current,<br>Reverse                  | Igssr               | V <sub>GS</sub> =-12V, V <sub>DS</sub> =0V                | -    | -    | -100 | nA    |  |  |
| On Characteristics                                     |                     |   |      |      |      |       |  |  |
| Gate Threshold Voltage                                 | V <sub>GS(th)</sub> | V <sub>GS</sub> =V <sub>DS</sub> , I <sub>D</sub> =-250μA | -0.7 | -    | -1.3 | V     |  |  |
| Static Drain-Source On-Resistance                      | Rds(on)             | V <sub>GS</sub> =-10V, I <sub>D</sub> =-3.2A              | -    | 50   | 55   | mΩ    |  |  |
|  |                     | V <sub>GS</sub> =-4.5V, I <sub>D</sub> =-3.0A             | -    | 60   | 70   |       |  |  |
|  |                     | V <sub>GS</sub> =-2.5V, I <sub>D</sub> =-1.0A             | -    | 80   | 120  |       |  |  |
| Drain-Source Diode Characteristics and Maximum Ratings |                     |   |      |      |      |       |  |  |
| Diode-Source Diode Forward<br>Voltage                  | V <sub>SD</sub>     | V <sub>GS</sub> =0V, I <sub>S</sub> =1.0A                 | -    | -    | -1.0 | V     |  |  |

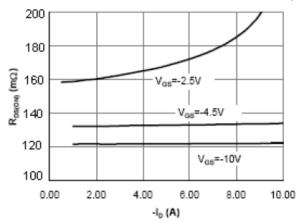
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#### TYPICAL CHARACTERISTICS

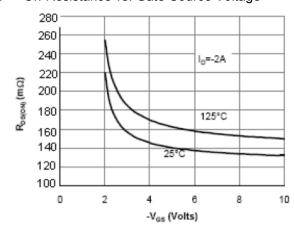
1. On-Region Characteristics



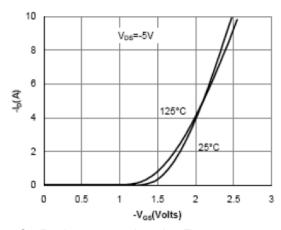
3. On-Resistance vs. Drain Current and Gate Voltage



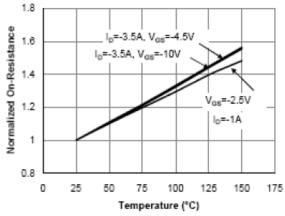
5. On-Resistance vs. Gate-Source Voltage



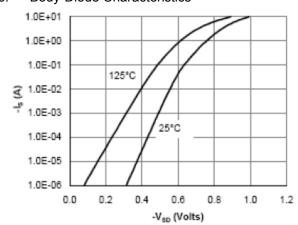
2. Transfer Characteristics



4. On-Resistance vs. Junction Temperature



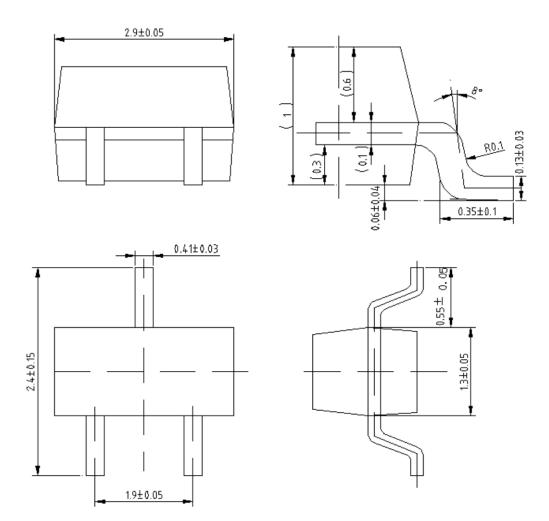
6. Body-Diode Characteristics



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# PACKAGE INFORMATION

Dimension in SOT-23S (Unit: mm)



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