



DESCRIPTION

$V_{DS} = -30V$

$V_{GS} = \pm 12V$

$I_D(A) = -4.2A$

$R_{DS(ON)} = 55m\Omega(MAX) @V_{GS} = -10V.$

$R_{DS(ON)} = 70m\Omega(MAX) @V_{GS} = -4.5V.$

$R_{DS(ON)} = 120m\Omega(MAX) @V_{GS} = -2.5V.$

The AM3401B is available in SOT-23 package.

ORDERING INFORMATION

| Package Type | Part Number | |
|--------------------------------|---|-------------|
| SOT-23 SPQ: 3,000pcs/Reel | E3 | AM3401BE3R |
| | | AM3401BE3VR |
| Note | V: Halogen free Package R: Tape & Reel | |
| AiT provides all RoHS products | | |

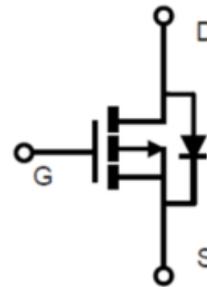
FEATURES

- Super High dense cell design for extremely low $R_{DS(ON)}$
- Reliable and Rugged
- Available in SOT-23 package

APPLICATION

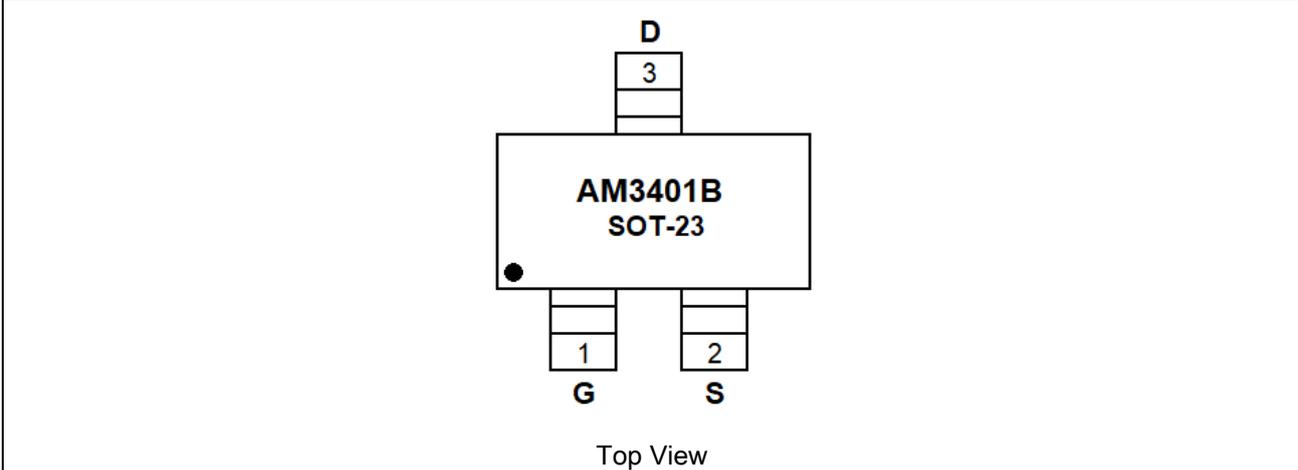
- Power Management
- Portable Equipment and Battery Powered Systems.

P-CHANNEL MOSFET





PIN DESCRIPTION



| Pin # | Symbol | Function |
|-------|--------|----------|
| 1 | G | Gate |
| 2 | S | Source |
| 3 | D | Drain |



ABSOLUTE MAXIMUM RATINGS

T_A=25°C, unless otherwise noted

| | |
|---|-------|
| V _{DS} , Drain-Source Voltage | -30V |
| V _{GS} , Gate-Source Voltage | ±12V |
| I _D , Continuous Drain Current | -4.2A |

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

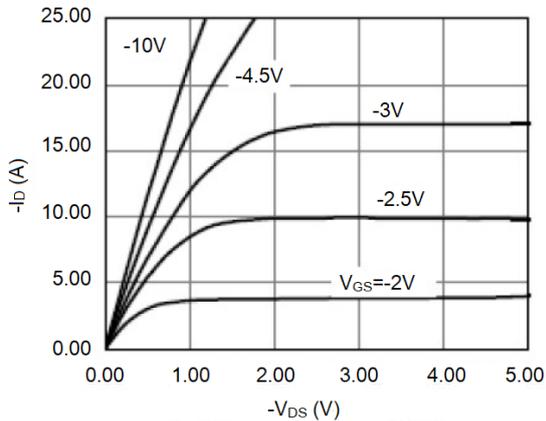
T_A=25°C, unless otherwise noted

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|---|---------------------|---|------|------|------|------|
| Off Characteristics | | | | | | |
| Drain-Source Breakdown Voltage | BV _{DSS} | V _{GS} =0V, I _D =-250μA | -30 | - | - | V |
| Zero Gate Voltage Drain Current | I _{DSS} | V _{DS} =-24V, V _{GS} =0 | - | - | -1 | μA |
| Gate Body Leakage Current, Forward | I _{GSSF} | V _{DS} =0V, V _{GS} =12V | - | - | 100 | nA |
| Gate Body Leakage Current, Reverse | I _{GSSR} | V _{DS} =0V, V _{GS} =-12V | - | - | -100 | nA |
| On Characteristics | | | | | | |
| Gate Threshold Voltage | V _{GS(th)} | V _{GS} =V _{DS} , I _D =-250μA | -0.7 | - | -1.3 | V |
| Static Drain-Source On-Resistance | R _{DS(ON)} | V _{GS} =-10V, I _D =-4.2A | - | 50 | 55 | mΩ |
| | | V _{GS} =-4.5V, I _D =-4.0A | - | 60 | 70 | |
| | | V _{GS} =-2.5V, I _D =-1.0A | - | 80 | 120 | |
| Drain-Source Diode Characteristics and Maximum Ratings | | | | | | |
| Diode-Source Diode Forward Voltage | V _{SD} | V _{GS} =0V, I _S =-1.0A | - | - | -1.0 | V |

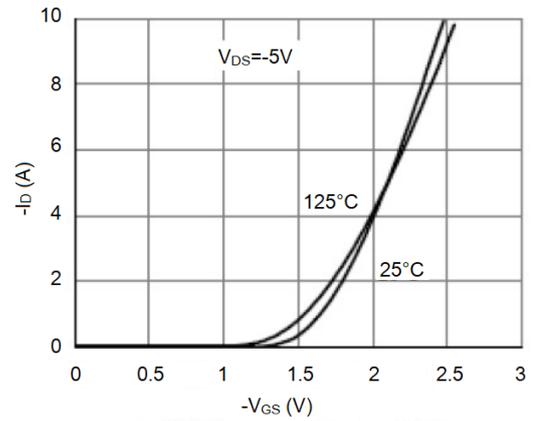


TYPICAL PERFORMANCE CHARACTERISTICS

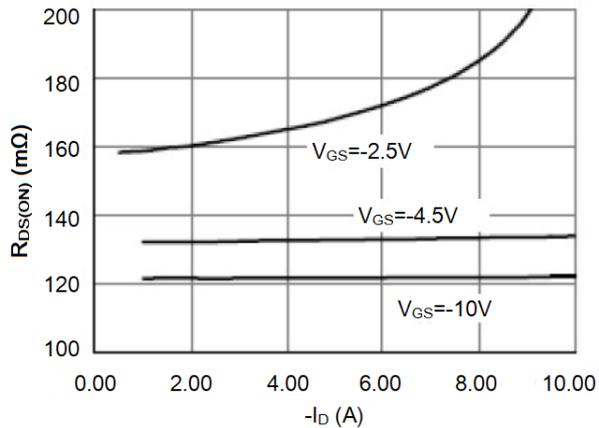
1. On-Region Characteristics



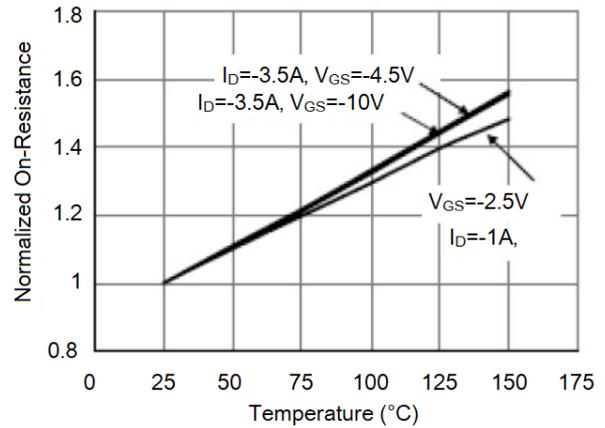
2. Transfer Characteristics



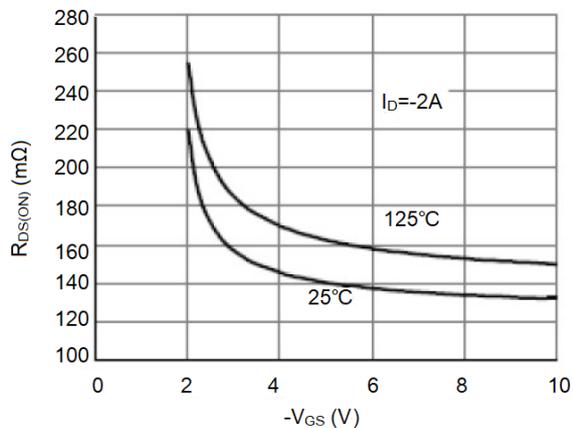
3. On-Resistance vs. Drain Current and Gate Voltage



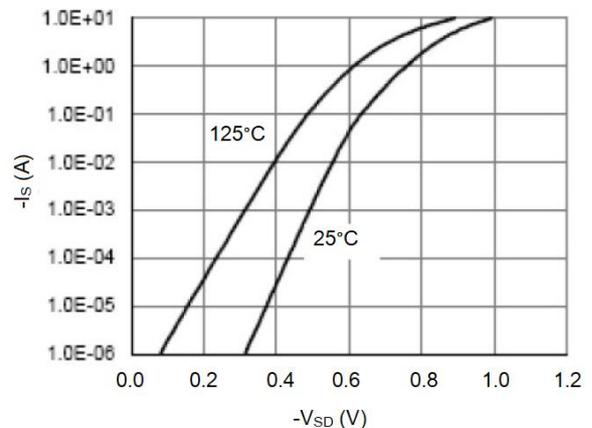
4. On-Resistance vs. Junction Temperature



5. On-Resistance vs. Gate-Source Voltage



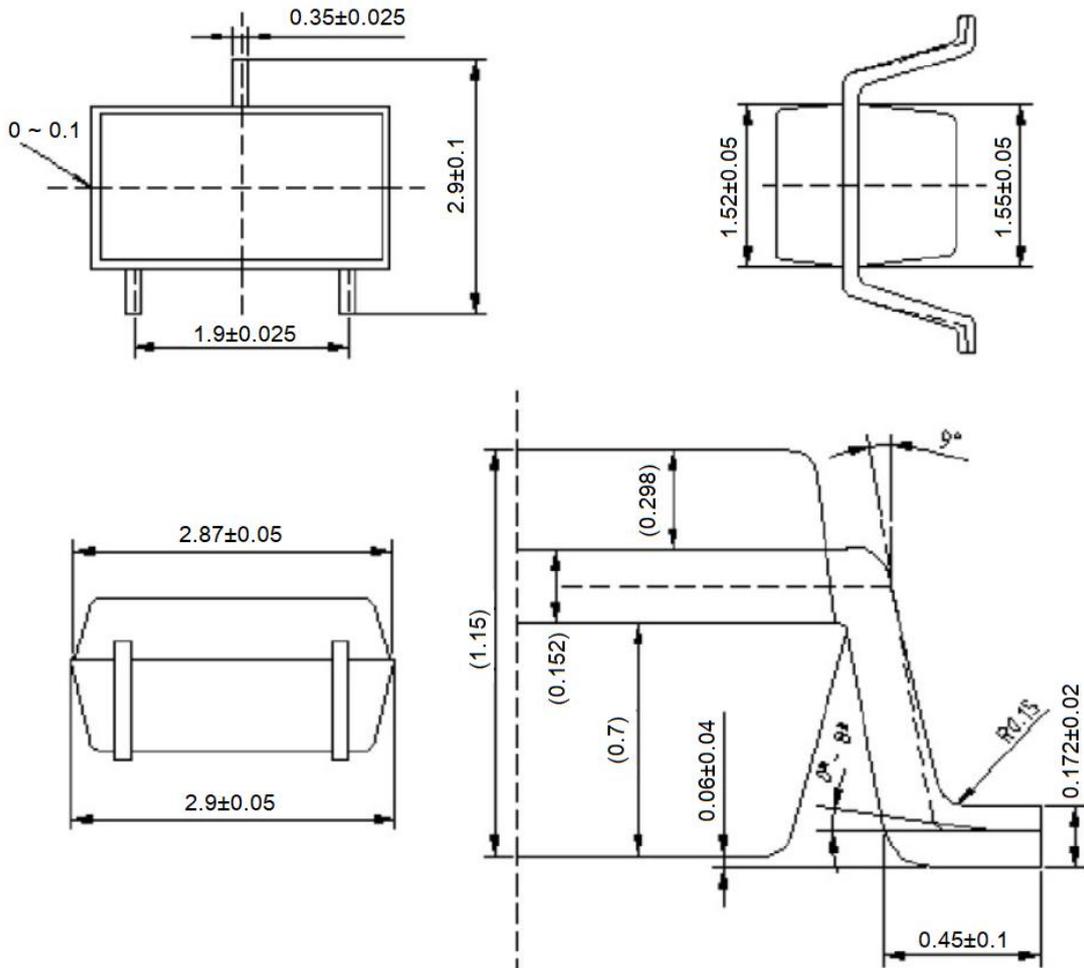
6. Body-Diode Characteristics





PACKAGE INFORMATION

Dimension in SOT-23 (Unit: mm)





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