



DESCRIPTION

$V_{DS} = -20V$

$V_{GS} = \pm 10V$

$I_D(A) = -3A$

$R_{DS(ON)} = 120m\Omega(MAX) @ V_{GS} = -4.5V$

$R_{DS(ON)} = 150m\Omega(MAX) @ V_{GS} = -2.5V$

The AM2301B is available in SOT-23 package

ORDERING INFORMATION

Package Type	Part Number	
SOT-23 SPQ: 3,000pcs/Reel	E3	AM2301BE3R
		AM2301BE3VR
Note	V: Halogen free Package R: Tape & Reel	
AiT provides all RoHS products		

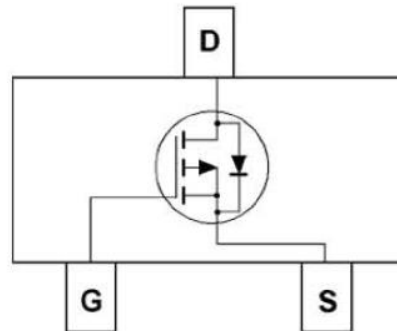
FEATURES

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

APPLICATIONS

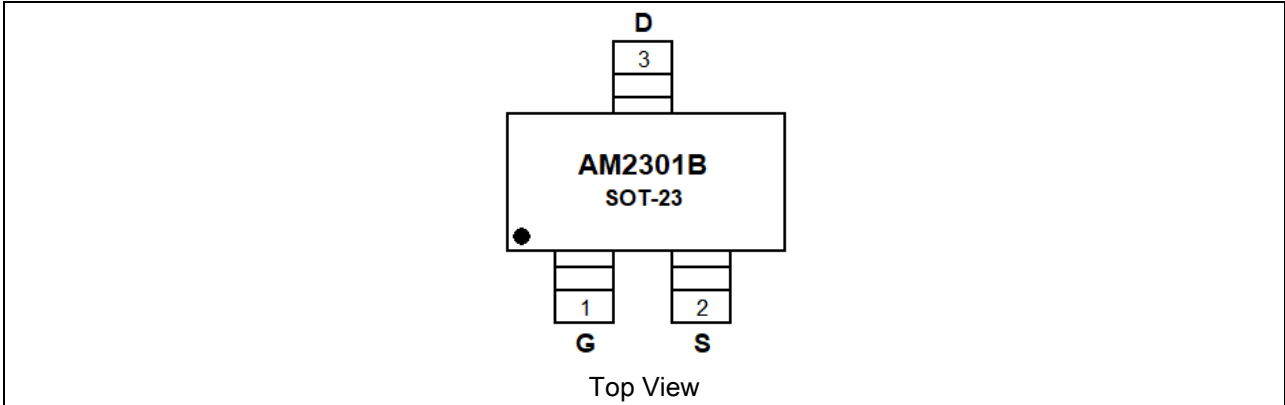
- Power Management
- Portable Equipment and Battery Powered Systems.

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	-20V
V _{GS} , Gate-Source Voltage	±10V
I _D , Drain Current-Continuous	-3A

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

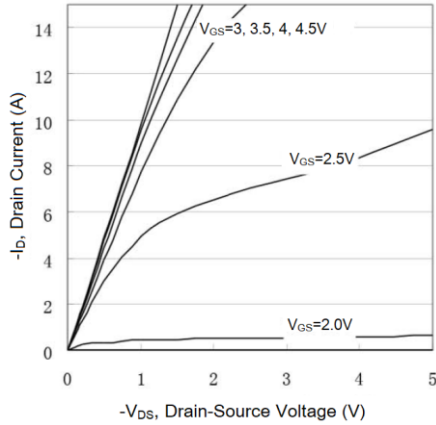
T_A = 25°C, unless otherwise noted

Parameter	Symbol	Conditions	Min	Typ.	Max	Units
Off Characteristics						
Drain to Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V, I _D =-250μA	-20	-	-	V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =-20V, V _{GS} =0V	-	-	-1	μA
Gate Body Leakage Current, Forward	I _{GSSF}	V _{GS} =10V, V _{DS} =0V,	-	-	100	nA
Gate Body Leakage Current, Reverse	I _{GSSR}	V _{GS} =-10V, V _{DS} =0V,	-	-	-100	nA
On Characteristics						
Gate Threshold Voltage	V _{GS(th)}	V _{GS} =V _{DS} , I _D =-250μA	-0.4	-	-1.0	V
Static Drain-Source On-Resistance	R _{DS(ON)}	V _{GS} =-4.5V, I _D =-3.0A	-	-	120	mΩ
		V _{GS} =-2.5V, I _D =-2.0A	-	-	150	
Drain-Source Diode Characteristics and Maximum Ratings						
Drain-Source Diode Forward Voltage	V _{SD}	V _{GS} =0V, I _S =-1.25A	-	-	-1.2	V

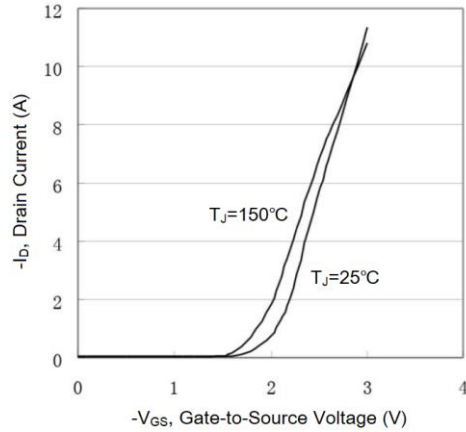


TYPICAL CHARACTERISTICS

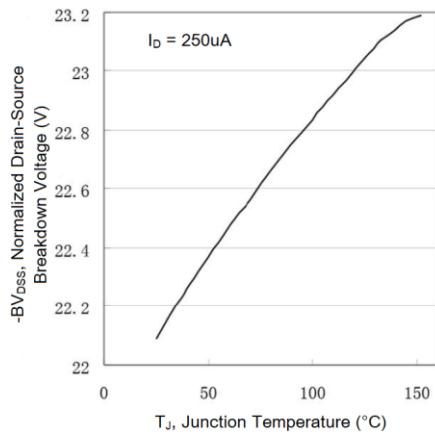
1. Output Characteristics



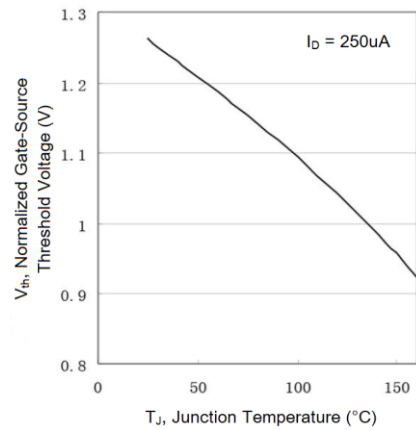
2. Transfer Characteristics



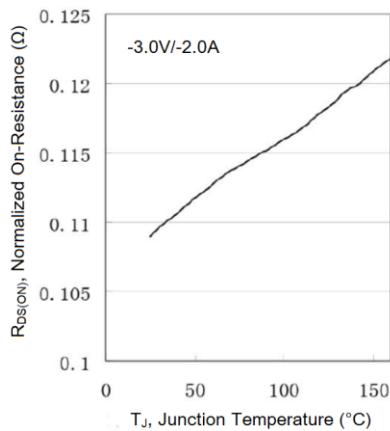
3. Breakdown Voltage Variation with Temperature



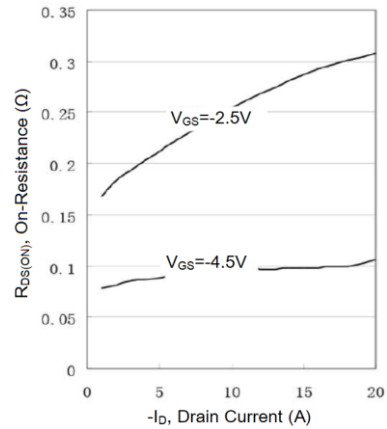
4. Gate Threshold Variation with Temperature



5. On-Resistance Variation with Temperature

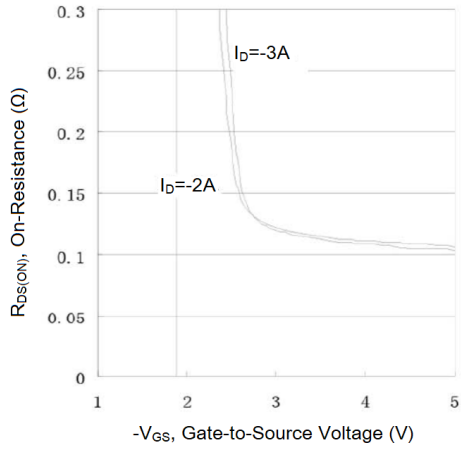


6. On-Resistance vs. Drain Current

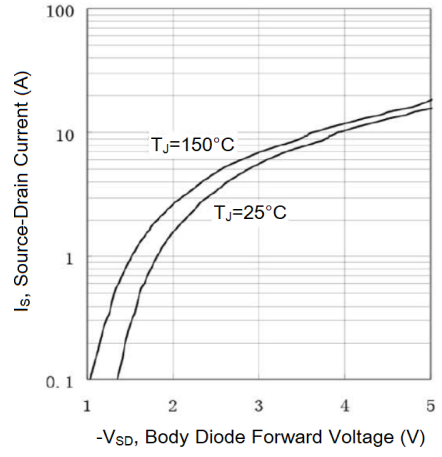




7. On-Resistance vs. Gate-to-Source Voltage



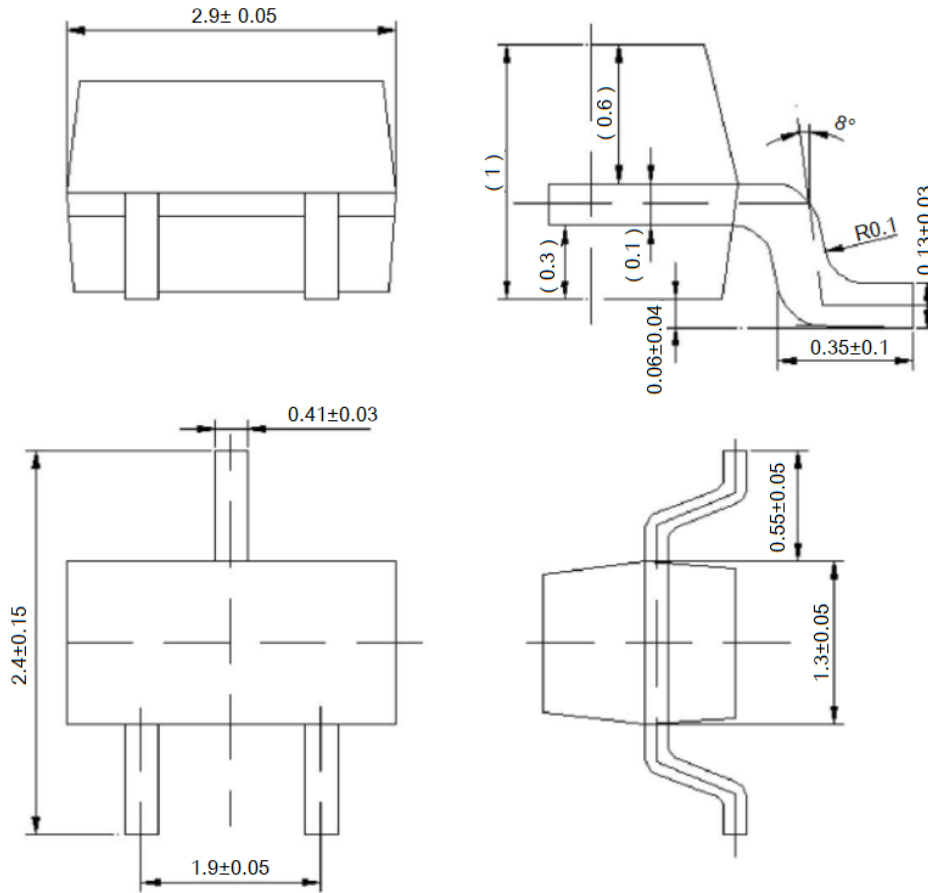
8. Source-Drain Diode Forward Voltage





PACKAGE INFORMATION

Dimension in SOT-23S Package (Unit: mm)





IMPORTANT NOTICE

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