



DESCRIPTION

AM3423 is available in a SOT-23S package.

ORDERING INFORMATION

Package Type	Part Number	
SOT-23S SPQ: 3,000pcs/Reel	E3S	AM3423E3SR
		AM3423E3SVR
Note	V: Halogen free Package R: Tape & Reel	
AiT provides all RoHS products		

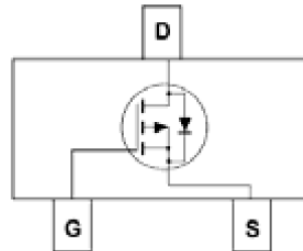
FEATURES

- -20V/-2A,
 $R_{DS(ON)} = 150m\Omega(MAX) @V_{GS} = -4.5V$
 $R_{DS(ON)} = 180m\Omega(MAX) @V_{GS} = -2.5V$
- Super High dense cell design for extremely low $R_{DS(ON)}$
- Reliable and Rugged
- Available in a SOT-23S package.

APPLICATION

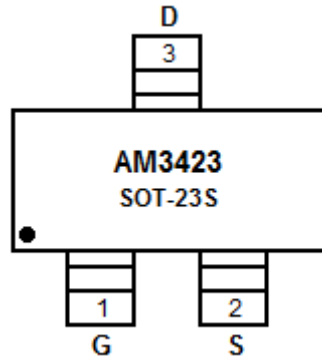
- Power Management
- Portable Equipment and Battery Powered Systems

PIN DESCRIPTION





PIN DESCRIPTION



Top View

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



ABSOLUTE MAXIMUM RATINGS

T_C = 25°C, unless otherwise noted

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

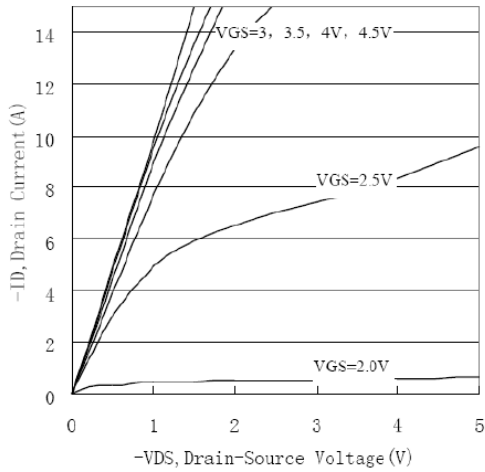
T_A = 25°C, unless otherwise noted

Parameter	Symbol	Conditions	Min	Typ.	Max	Units
Off Characteristics						
Drain-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 _{DSON}	V _{GS} =-4.5V, I _D =-3.0A	-	-	150	mΩ
		V _{GS} =-2.5V, I _D =-2.0A	-	-	180	
Drain-Source Diode Characteristics and Maximum Ratings						
Diode-Source Diode Forward Voltage	V _{SD}	V _{GS} =0V, I _S =1.25A	-	-	-1.2	V

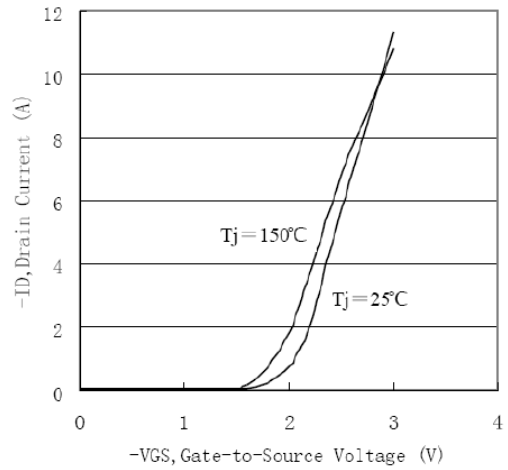


TYPICAL CHARACTERISTICS

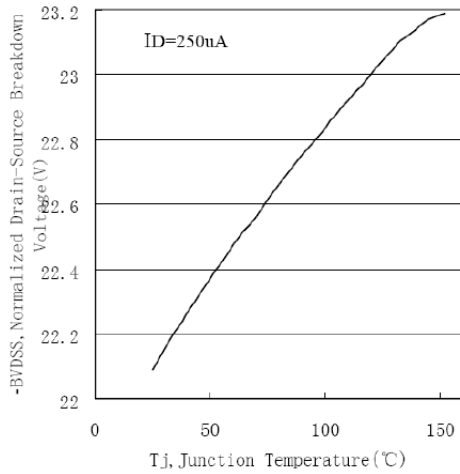
1. Output Characteristics



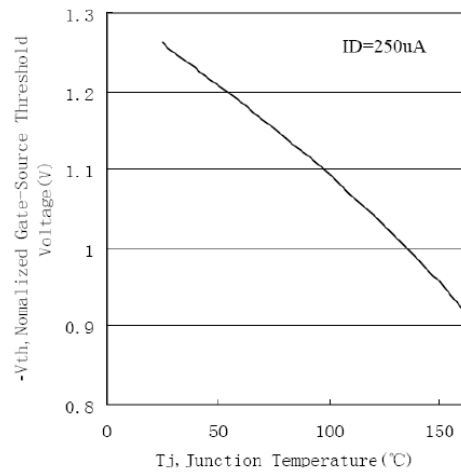
2. Transfer Characteristics



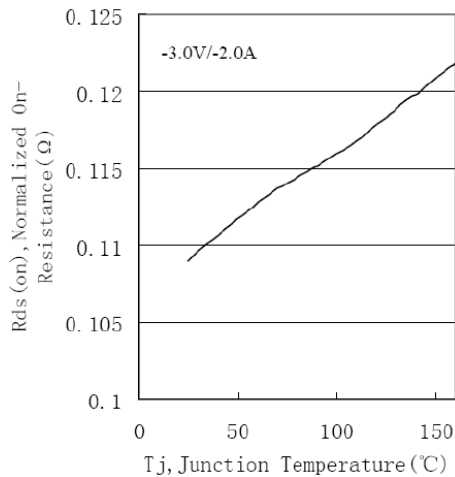
3. Breakdown Voltage Variation with Temperature



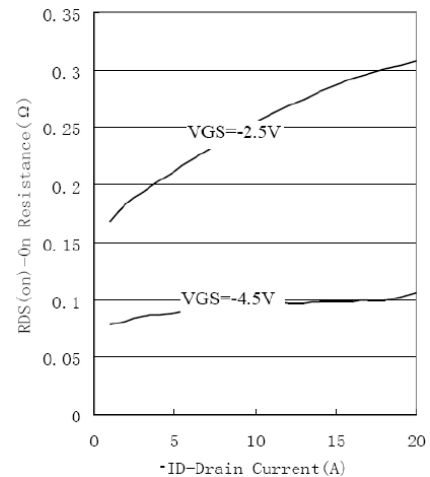
4. Gate Threshold Variation with Temperature



5. On-Resistance Variation with Temperature

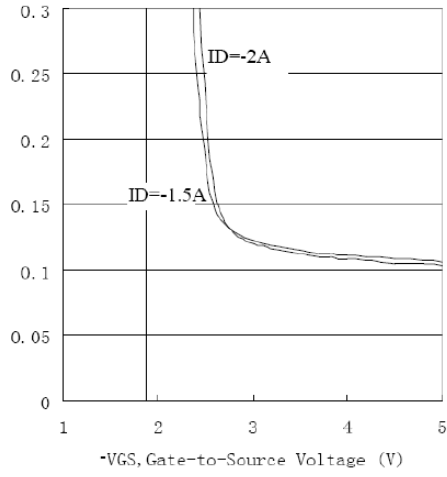


6. On-Resistance vs. Drain Current

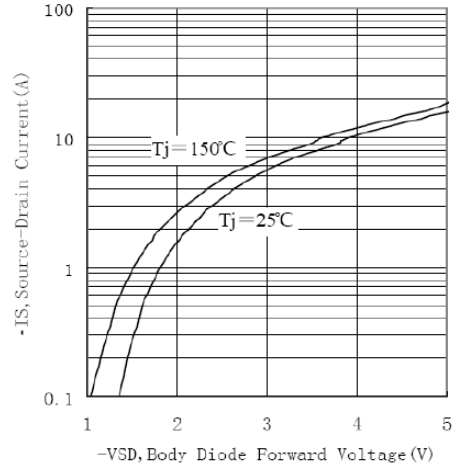




7. On-Resistance vs. Gate-to-Source Voltage



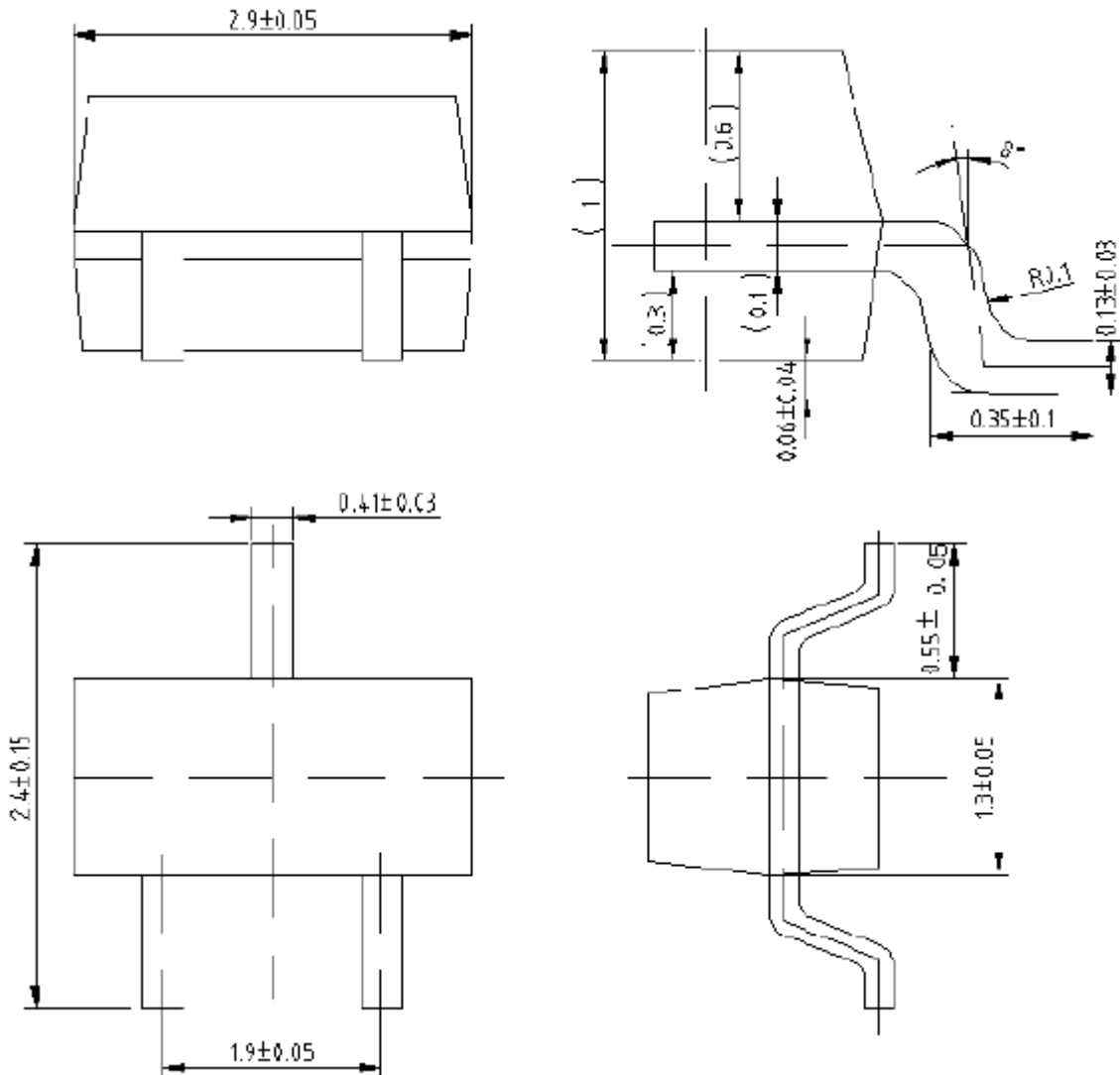
8. Source-Drain Diode Forward Voltage





PACKAGE INFORMATION

Dimension in SOT-23S (Unit: mm)





IMPORTANT NOTICE

AiT Semiconductor Inc. (AiT) reserves the right to make changes to any its product, specifications, to discontinue any integrated circuit product or service without notice, and advises its customers to obtain the latest version of relevant information to verify, before placing orders, that the information being relied on is current.

AiT Semiconductor Inc.'s integrated circuit products are not designed, intended, authorized, or warranted to be suitable for use in life support applications, devices or systems or other critical applications. Use of AiT products in such applications is understood to be fully at the risk of the customer. As used herein may involve potential risks of death, personal injury, or server property, or environmental damage. In order to minimize risks associated with the customer's applications, the customer should provide adequate design and operating safeguards.

AiT Semiconductor Inc. assumes to no liability to customer product design or application support. AiT warrants the performance of its products of the specifications applicable at the time of sale.