



**LXS101 - LXS701**  
**SURFACE MOUNT SOT-23**  
**General Purpose Schottky Diodes**  
**RoHS Compliant**

**GENERAL DESCRIPTION**

Mil spec quality Schottky barrier devices are available in economical SOT23 plastic packages. Priced for high volume commercial applications, these devices provide state-of-the-art electrical performance, ideal for use as detectors, mixers, in up/down converters or in sampling phase detectors. When ordering, specify configuration - see configuration table for internal wiring diagrams. Other configurations are available - some limitations apply. Consult factory for availability. The LXS series of diodes are the RoHS compliant versions of the LSS series. The LXS series supersedes the LSS version.

This LXS series of devices meets RoHS requirements per EU Directive 2002/95/EC.

**APPLICATIONS**

Microsemi offers a variety of Schottky Barrier diodes in the SOT-23 package style. These products are well suited for mixer and detector applications, as well as for sampling, limiter and wave shaping circuits. Available on tape & reel, these products are ideal for high volume applications.

**KEY FEATURES**

- Standard SOT-23 Package Outline
- Surface Mount Design
- Wide Selecting of Values and Configurations
- Available on Tape and Reel for Automated Pick and Place Assembly
- Excellent Conversion Loss
- RoHS Compliant <sup>1</sup>

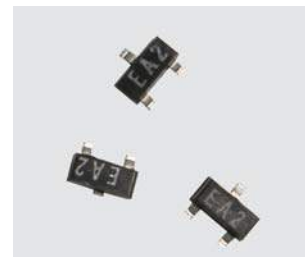
**APPLICATION/BENEFITS**

- Mixers
- Detectors
- Limiters
- Sampling
- Wave Shaping

<sup>1</sup> These devices are supplied with a matte tin finish suitable for RoHS compliant assembly.

**ABSOLUTE MAXIMUM RATINGS @ 25°C**

Rating	Symbol	Value	Unit
Power Dissipation (De-rated linearly to 0 at T <sub>J</sub> (max))	P <sub>D</sub>	250	mW
Storage Temperature	T <sub>STG</sub>	-55 to +125	°C
Operating Temperature	T <sub>OP</sub>	-55 to +125	°C
Forward Current (1us Pulse)	I <sub>F</sub>	1.0	A



For the most current data, consult MICROSEMI's website: [www.MICROSEMI.com](http://www.MICROSEMI.com)  
 Specifications are subject to change, consult the RFIS factory at (978) 442-5600 for the latest information.



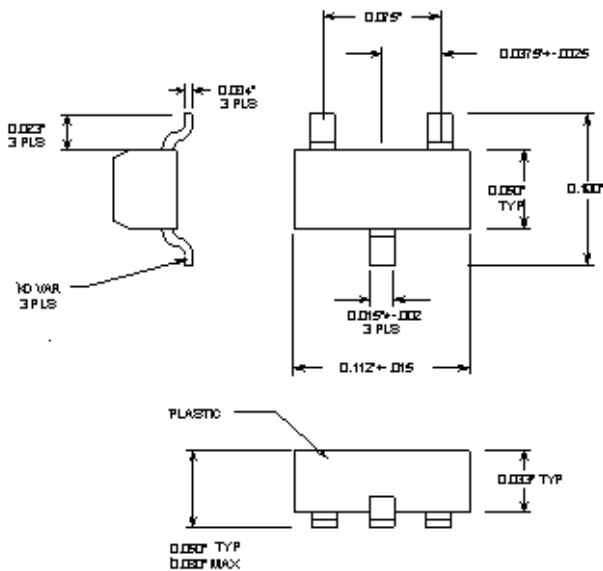
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**DEVICE ELECTRICAL PARAMETERS AT 25°C**

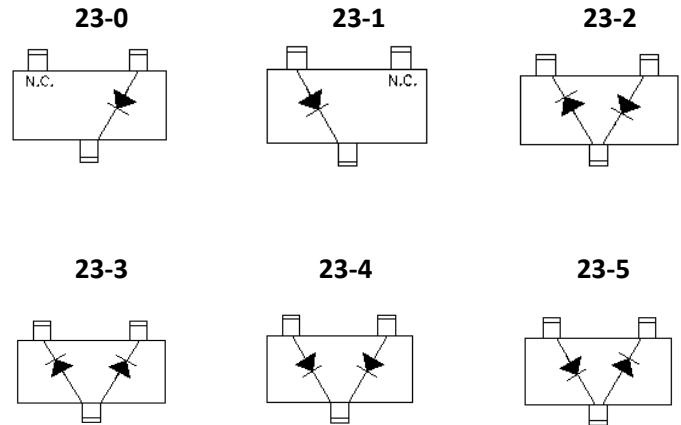
PN - Configuration		$V_B$ @ $I_R=10\mu A$ (V) (Min)	$V_B$ @ $I_R=100\mu A$ (V) (Min)	$I_R@V_R$ (nA) (Max)	@ $V_R(V)$	$V_F(mV)$ @ $I_F = 1mA$	$C_T(pF)^1$ @0V (Max)	$R_D(\Omega)$ @ $I_F=5mA$ (Typ)
LXS101	23-0 23-1 23-2 23-3 23-4 23-5		8.0	100	@1.0V	250 - 350	1.0	10
LXS201	23-0 23-2	3.0		400	@1.0V	250 - 350	0.30	14
LXS301	23-0 23-1 23-2 23-3 23-4	20		200	@15.0V	300 - 430	1.4	15
LXS701	23-0	70		200	@50.0V	300 - 430	2.0	32

Note 1: Capacitance is measured at  $f = 1$  MHz.

**PACKAGE STYLE 23**



**CONFIGURATIONS**



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**INDUSTRY CROSS REFERENCE**

PART NUMBER	CONFIGURATION		INDUSTRY EQUIVALENTS		
LXS701	23-0		HSMS2800	SMS1526-50	MA4CS101A
LXS301	23-0		HSMS2810	SMS1526-30	MA4CS103A
	23-1		HSMS2811		
	23-2		HSMS2812	SMS1527-30	MA4CS103B
	23-3		HSMS2813	SMS1528-30	MA4CS103D
	23-4		HSMS2814	SMS1529-30	MA4CS103C
	LXS101	23-0		HSMS2820	SMS1526-10
23-1			HSMS2821		
23-2			HSMS2822	SMS1527-10	MA4CS102B
23-3			HSMS2823	SMS1528-10	MA4CS102D
23-4			HSMS2824	SMS1529-10	MA4CS102C
23-5					
LXS201	23-0			SMS3989	MA4E1245KA
	23-2			SMS3988	MA4E1245KB

**Revision History**

Revision Level / Date	Para. Affected	Description
2009-01-19	-	Initial Release
1 / 08 November 2013	-	Reformat & Revise part#

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