



BAV23x

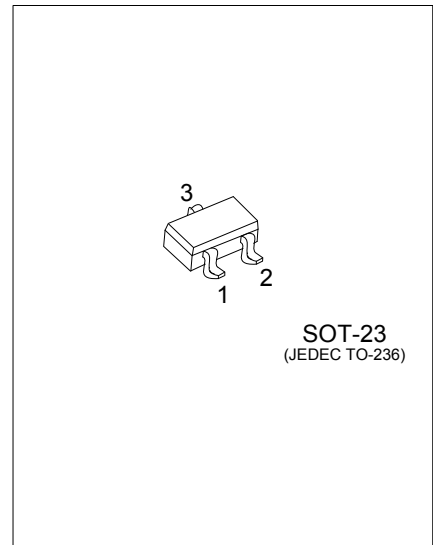
Preliminary

DIODE

HIGH CONDUCTANCE ULTRA FAST DIODE

■ FEATURES

- * Fast Switching Speed
- * Surface Mount Package
- * High Reverse Breakdown Voltage
- * Low Leakage Current



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BAV23AL-AE3-R	BAV23AG-AE3-R	SOT-23	K1	K2	A1A2	Tape Reel
BAV23CL-AE3-R	BAV23CG-AE3-R	SOT-23	A1	A2	K1K2	Tape Reel
BAV23SL-AE3-R	BAV23SG-AE3-R	SOT-23	A1	K2	K1A2	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>BAV23xG-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package (4) Diode Configuration</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23 (3) G: Halogen Free and Lead Free, L: Lead Free (4) x: refer to DIODE CONFIGURATION AND SYMBOL</p>
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■ DIODE CONFIGURATION AND SYMBOL

BAV23A	BAV23C	BAV23S

■ MARKING

BAV23A	BAV23C	BAV23S
<p>L: Lead Free G: Halogen Free</p>	<p>L: Lead Free G: Halogen Free</p>	<p>L: Lead Free G: Halogen Free</p>

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Maximum Repetitive Reverse Voltage	V_{RRM}	250	V
Working Peak Reverse Voltage	V_{RWM}	200	V
DC Blocking Voltage	V_R	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	141	V
Forward Continuous Current (Note 4)	I_F	400	mA
Non-repetitive Peak Forward Surge Current	$t=1.0\mu\text{s}$	I_{FSM}	9.0
	$t=100\mu\text{s}$		3.0
	$t=10\text{ms}$		1.7
Repetitive Peak Forward Surge Current (Note 4)	I_{FRM}	625	mA
Power Dissipation (Note 3)	P_D	350	mW
Junction Temperature	T_J	+150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-65 ~ +150	$^\circ\text{C}$

Note: 1. These ratings are based on a maximum junction temperature of 200°C.

- Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.
- Device mounted on FR-4 PCB minimum land pad

■ THERMAL DATA

CHARACTERISTIC	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	357	$^\circ\text{C/W}$

■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Breakdown Voltage	V_R	$I_R=100\mu\text{A}$	250			V
Forward Voltage	V_F	$I_F=100\text{mA}$			1.0	V
		$I_F=200\text{mA}$			1.25	V
Reverse Current	I_R	$V_R=200\text{V}, T_J=25^\circ\text{C}$			100	nA
		$V_R=200\text{V}, T_J=150^\circ\text{C}$			100	μA
Total Capacitance	C_T	$V_R=0\text{V}, f=1.0\text{MHz}$			5	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=30\text{mA}, I_{RR}=0.1\times I_R, R_L=100\Omega$			50	ns

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