



BAV70

Preliminary

DIODE

DUAL SURFACE MOUNT SWITCHING DIODE

DESCRIPTION

The UTC **BAV70** is a dual surface mount switching diode providing the designers high switching speed, high conductance and high reliability.

The UTC **BAV70** is suitable for common switching applications.

FEATURES

- * High Switching Speed
- * High Conductance
- * High Reliability
- * Green Product

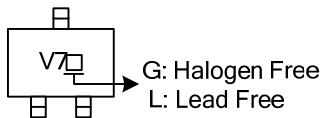
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BAV70L-AE3-R	BAV70G-AE3-R	SOT-23	A1	A2	K1K2	Tape Reel

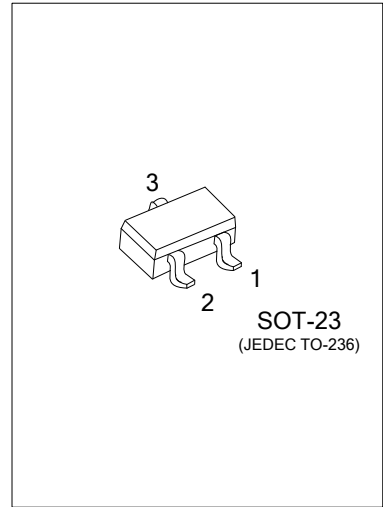
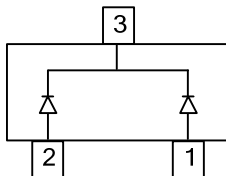
Note: Pin Assignment: A: Anode K: Cathode

<p>BAV70L-AE3-R</p> <p>(1)Packing Type (2)Package Type (3)Lead Free</p>	<p>(1) R: Tape Reel (2) AE3 : SOT-23 (3) Halogen Free, L: Lead Free</p>
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MARKING



PIN CONFIGURATION



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

PARAMETER	SYMBOL	RATINGS	UNIT
Non-Repetitive Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}	75	V
DC Blocking Voltage	V_R	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	150	mA
Repetitive Peak Forward Current	I_{FFM}	450	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	@ $t = 1.0\mu\text{s}$ 2.0	A
		@ $t = 1.0\text{s}$ 1.0	
Power Dissipation	P_D	350	mW
Operating Temperature	T_J	+150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-65~+150	$^\circ\text{C}$

Note: 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.

■ THERMAL DATA

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

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage (Note 1)	V_{FM}	$I_F = 1.0\text{mA}$			0.715	V
		$I_F = 10\text{mA}$			0.855	
		$I_F = 50\text{mA}$			1.0	
		$I_F = 150\text{mA}$			1.25	
Reverse Current (Note 1)	I_{RM}	$V_R = 75\text{V}$			2.5	μA
		$V_R = 75\text{V}, T_J = 150^\circ\text{C}$			50	
		$V_R = 25\text{V}, T_J = 150^\circ\text{C}$			30	nA
		$V_R = 20\text{V}$			25	
Total Capacitance	C_T	$V_R = 0, f = 1.0\text{MHz}$			2.0	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$			4.0	ns

Notes: 1. Short duration test pulse used to minimize self-heating effect.

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