



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

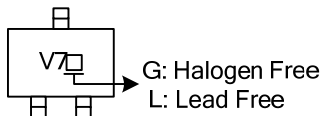
ORDERING INFORMATION

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

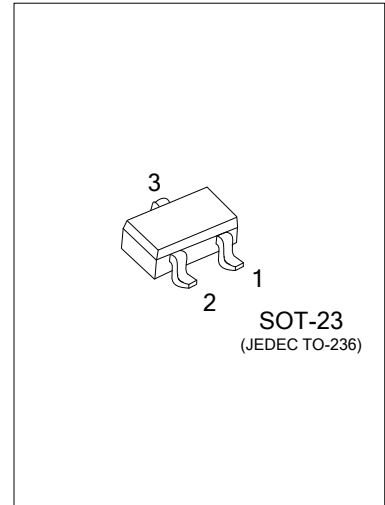
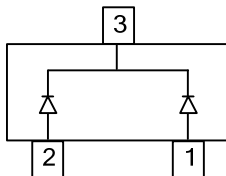
Note: Pin Assignment: A: Anode K: Cathode

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

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	I_{FSM}	2.0	A
Surge Current		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	$^\circ\text{C/W}$

■ **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.

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.