



# BAV70

**DIODE**

## DUAL SURFACE MOUNT SWITCHING DIODE

### DESCRIPTION

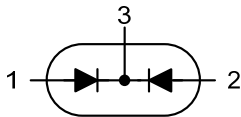
The UTC **BAV70** is a dual surface mount switching diode providing the designers high switching speed, high conductance and high reliability.

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

### FEATURES

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

### SYMBOL



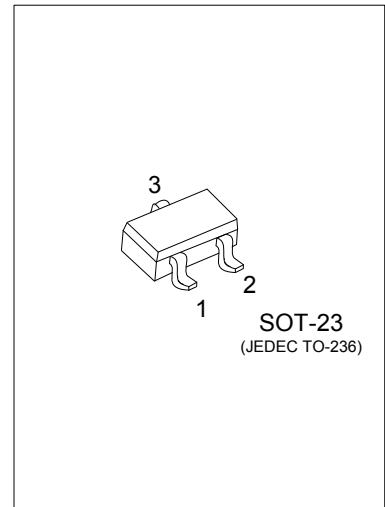
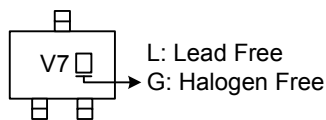
### ORDERING INFORMATION

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>BAV70G-AE3-R</p> <ul style="list-style-type: none"> <li>(1) Packing Type</li> <li>(2) Package Type</li> <li>(3) Green Package</li> </ul>	<ul style="list-style-type: none"> <li>(1) R: Tape Reel</li> <li>(2) AE3 : SOT-23</li> <li>(3) G: Halogen Free and Lead Free, L: Lead Free</li> </ul>
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### MARKING



■ 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	$V_{RRM}$	85	V
Working Peak Reverse Voltage	$V_{RWM}$	85	V
DC Blocking Voltage	$V_R$	85	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	@ $t = 1.0\mu\text{s}$	2.0	A
	@ $t = 1.0\text{s}$	1.0	A
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	$\theta_{JA}$	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)	$V_{FM}$	$I_F = 1.0\text{mA}$			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)	$I_{RM}$	$V_R = 85\text{V}$			2.5	$\mu\text{A}$
		$V_R = 85\text{V}, T_J = 150^\circ\text{C}$			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: Short duration test pulse used to minimize self-heating effect.

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