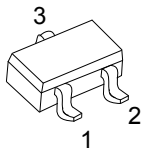
BAV70

DIODE

DUAL SURFACE MOUNT SWITCHING DIODE



SOT-23
(JEDEC TO-236)

■ DESCRIPTION

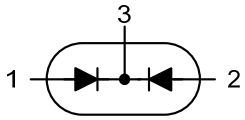
The UTC **BAV70** is a dual surface mount switching diode providing the designers high switching speed, high conductance and high reliability.

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

■ FEATURES

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

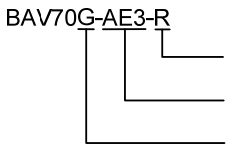
■ SYMBOL



■ ORDERING INFORMATION

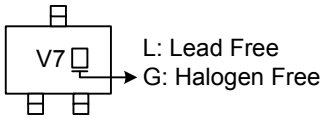
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BAV70L-AE3-R	BAV70G-AE3-R	SOT-23	A1	A2	K1K2	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode



(1) R: Tape Reel
(2) AE3 : SOT-23
(3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A = 25°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 = 1.0μs	I_{FSM}	2.0	A
	@ t = 1.0s		1.0	A
Power Dissipation		P_D	350	mW
Operating Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-65 ~ +150	°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	°C/W

■ ELECTRICAL CHARACTERISTICS (T_A =25°C unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage (Note)	V_{FM}	I_F= 1.0mA			0.715	V
		I_F= 10mA			0.855	
		I_F= 50mA			1.0	
		I_F= 150mA			1.25	
Reverse Current (Note)	I_{RM}	V_R= 85V			2.5	μA
		V_R= 85V, T_J= 150°C			50	
		V_R= 25V, T_J= 150°C			30	
		V_R=20V			25	nA
Total Capacitance	C_T	V_R= 0, f = 1.0MHz			2.0	pF
Reverse Recovery Time	t_{rr}	I_F= I_R= 10mA, I_{rr} = 0.1 x I_R, R_L= 100Ω			4.0	ns

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