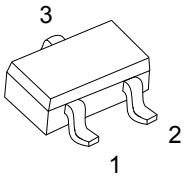
BAV199

DIODE

DUAL SURFACE MOUNT LOW LEAKAGE DIODE



SOT-23
(JEDEC TO-236)

■ DESCRIPTION

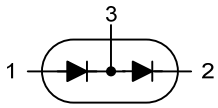
The UTC **BAV199** is a dual surface mount diode providing the designers with extremely low leakage current.

The UTC **BAV199** is suitable for automatic insertion.

■ FEATURES

* Extremely Low Leakage Current

■ SYMBOL



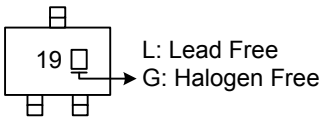
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BAV199L-AE3-R	BAV199G-AE3-R	SOT-23	A1	K2	K1A2	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

BAV199G-AE3-R (1) Packing Type (2) Package Type (3) Green Package	(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
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		$V_{R(RMS)}$	60	V
Forward Continuous Current	Single diode	I_{FM}	160	mA
	Double diode		140	
Repetitive Peak Forward Current		I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	t = 1.0μs	I_{FSM}	4.0	A
	t = 1.0ms		1.0	A
	t = 1.0s		0.5	A
Power Dissipation (Note 2)		P_D	250	mW
Junction Temperature		T_J	-65 ~ +150	°C
Storage Temperature		T_{STG}	-65 ~ +150	°C

Notes: 1. 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.
2. Part mounted on FR-4 PC board with recommended pad layout.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Thermal Resistance Junction to Ambient Air (Note 2)	θ_{JA}	500	°C/W

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note)	$V_{(BR)R}$	I_R=100μA	85			V
Forward Voltage (Note)	V_F	I_F=1.0mA			0.90	V
		I_F=10mA			1.0	V
		I_F=50mA			1.1	V
		I_F=150mA			1.25	V
Leakage Current (Note)	I_R	V_R=75V			50	nA
Total Capacitance	C_T	V_R=0, f=1.0MHz		2		pF
Reverse Recovery Time	t_{rr}	I_F=I_R=10mA, I_{rr}=0.1xI_R, R_L=100Ω			3.0	μs

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