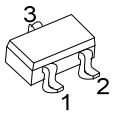
DUAL SURFACE MOUNT SWITCHING DIODE



SOT-523

■ DESCRIPTION

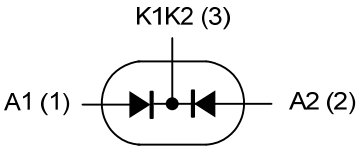
The UTC **BAV70T** is a dual surface mount switching diode providing the designers high switching speed, high conductance and high reliability.

The UTC **BAV70T** is suitable for common switching applications.

■ FEATURES

* High Switching Speed
* High Conductance
* High Reliability
* Low capacitance
* Reverse voltage
* Low leakage current

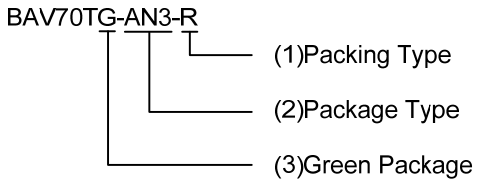
■ SYMBOL



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen-Free		1	2	3	
BAV70TL-AN3-R	BAV70TG-AN3-R	SOT-523	A1	A2	K1K2	Tape Reel

Note: Pin assignment: A: Anode K: Cathode

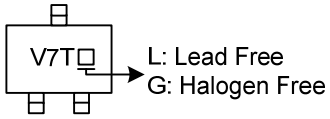


(1) R: Tape Reel

(2) AN3: SOT-523

(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}	75	V
Working Peak Reverse Voltage		V_{RWM}	75	V
DC Blocking Voltage		V_R	75	V
Forward Continuous Current (Note 2)		I_F	150	mA
Average Rectified Output Current (Note 2)		I_O	75	mA
Repetitive Peak Forward Current (Note 2)		I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	t = 1.0μs	I_{FRM}	4	A
	t = 1.0ms		1	A
	t = 1.0s		0.5	A
Power Dissipation		P_D	150	mW
Operating 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. Device mounted on FR-4 substrate PC board, 2oz copper, with 1inch square copper plate.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	θ_{JA}	833	°C/W

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	I_R=100μA	85			V
Forward Voltage (Note 2)	V_F	I_F=1.0mA			0.715	V
		I_F=10mA			0.855	V
		I_F=50mA			1	V
		I_F=150mA			1.25	V
Reverse Current	I_R	V_R=25V			30	nA
		V_R=75V			2	μA
		V_R=25V, T_J=150°C			60	μA
		V_R=75V, T_J=150°C			100	μA
Reverse Recovery Time	t_{rr}	I_F=I_R=10mA, I_{rr}=0.1xI_R, R_L=85Ω			4	ns

Notes: 1. Short duration test pulse used to minimize self-heating effect.
2. Pulse Test: Pulse width ≤ 300μs, Duty cycle ≤ 1%.