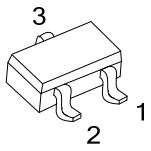
DUAL SURFACE MOUNT SWITCHING DIODE



SOT-23
(JEDEC TO-236)

■ DESCRIPTION

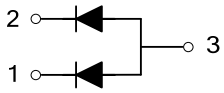
The UTC **BAW56** is a dual surface mount switching diode providing the designers with ultra-fast switching and high conductance.

The UTC **BAW56** is suitable for general purpose switching applications.

■ FEATURES

* Ultra-fast switching
* Low switching loss
* High Conductance

■ SYMBOL



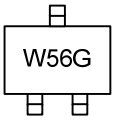
■ ORDERING INFORMATION

Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
BAW56G-AE3-R	SOT-23	K1	K2	A2A1	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

BAW56G-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

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Non-Repetitive Peak Reverse Voltage		V_{RM}	100	V
Repetitive Peak 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 (Note 2)		I_{FM}	300	mA
Average Rectified Output Current		I_O	150	mA
Non-Repetitive Peak Forward Surge Current	t=1.0μs	I_{FSM}	2.0	A
	t=1.0s		1.0	
Power Dissipation (Note 2)		P_D	350	mW
Junction Temperature		T_J	-65 ~ +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 (Note 2)	θ_{JA}	357	°C/W

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{BR(R)}$	I_R = 2.5μA	75			V
Forward Voltage (Note 1, 3)	V_F	I_F = 1.0mA			0.715	V
		I_F = 10mA			0.855	V
		I_F = 50mA			1.0	V
		I_F = 150mA			1.25	V
Peak Reverse Current (Note 1)	I_R	V_R = 75V			2.5	μA
		V_R = 75V, T_J = 150°C			50	μA
		V_R = 25V, T_J = 150°C			30	μA
		V_R = 20V			25	nA
Junction Capacitance	C_J	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: 1.Short duration test pulse used to minimize self-heating effect.
2. Part mounted on FR-4 PC board with recommended pad layout.
3. Pulse Test: Pulse Width: 300μs, Duty Cycle ≤ 2%.