

**BAW56W**

Preliminary

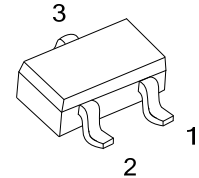
DIODE**DUAL SURFACE MOUNT
SWITCHING DIODE****DESCRIPTION**

The UTC **BAW56W** is a dual surface mount switching diode providing the designers with ultra-fast switching and high conductance.

The UTC **BAW56W** is suitable for general purpose switching applications

FEATURES

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



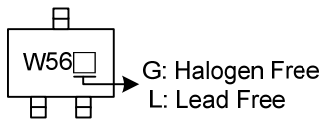
SOT-23

ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BAW56WL-AE3-R	BAW56WG-AE3-R	SOT-23	K1	K2	A2A1	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

BAW56WL-AE3-R (1)Packing Type (2)Package Type (3)Lead Free	(1) R: Tape Reel (2) AE3: SOT-23 (3) G:Halogen Free, L: Lead Free
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MARKING

■ **ABSOLUTE MAXIMUM RATINGS** ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		V
DC Blocking Voltage	V_R		V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current	$t=1.0\mu\text{s}$	I_{FSM}	A
	$t=1.0\text{s}$		
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	$-65 \sim +150$	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	$-65 \sim +150$	$^{\circ}\text{C}$

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
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	$^{\circ}\text{C/W}$

■ **ELECTRICAL CHARACTERISTICS** ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{BR(R)}$	$I_R = 100\mu\text{A}$	75			V
Forward Voltage (Note 1)	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	
Peak Reverse Current (Note 1)	I_{RM}	$V_R = 75\text{V}$			2.5	μA
		$V_R = 75\text{V}, T_J = 150^{\circ}\text{C}$			50	
		$V_R = 25\text{V}, T_J = 150^{\circ}\text{C}$			30	
		$V_R = 20\text{V}$			25	nA
Junction Capacitance	C_J	$V_R = 0, f = 1.0\text{MHz}$			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

Note: 1. Short duration test pulse used to minimize self-heating effect.

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