



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

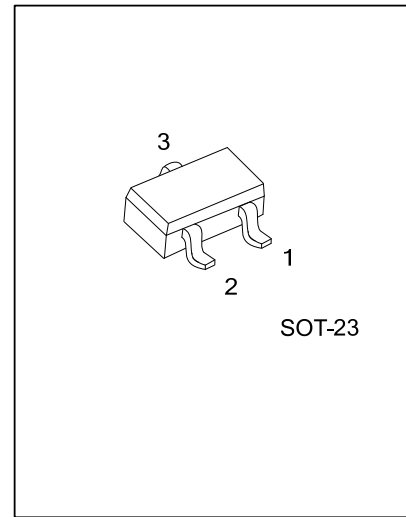
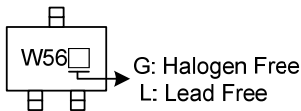
ORDERING INFORMATION

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

<p>BAW56WL-AE3-R</p> <p>(1)Packing Type (2)Package Type (3)Lead Free</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23 (3) G:Halogen Free, L: Lead Free</p>
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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	$I_{FSM}$	$t=1.0\mu\text{s}$	2.0	A
		$t=1.0\text{s}$	1.0	
Power Dissipation	$P_D$	200	mW	
Junction Temperature	$T_J$	-65 ~ +150	$^\circ\text{C}$	
Storage Temperature	$T_{STG}$	-65 ~ +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	$\mu\text{A}$
		$V_R = 75\text{V}, T_J = 150^\circ\text{C}$			50	
		$V_R = 25\text{V}, T_J = 150^\circ\text{C}$			30	
		$V_R = 20\text{V}$			25	
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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