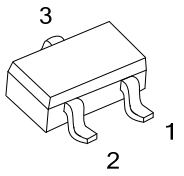
BAW56W Preliminary **DIODE**

DUAL SURFACE MOUNT SWITCHING DIODE



SOT-23

■ 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

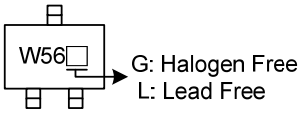
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BAW56WL-AE3-R	BAW56WG-AE3-R	SOT-23	K1	K2	A2A1	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

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

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°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=1.0μs	I_{FSM}	2.0	A
	t=1.0s		1.0	
Power Dissipation		P_D	200	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
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	°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	75			V
Forward Voltage (Note 1)	V_{FM}	I_F = 1.0mA			0.715	V
		I_F = 10mA			0.855	
		I_F = 50mA			1.0	
		I_F = 150mA			1.25	
Peak Reverse Current (Note 1)	I_{RM}	V_R = 75V			2.5	μA
		V_R = 75V, T_J = 150°C			50	
		V_R = 25V, T_J = 150°C			30	
		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

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