



BAS914

DIODE

HIGH-SPEED SWITCHING DIODE

DESCRIPTION

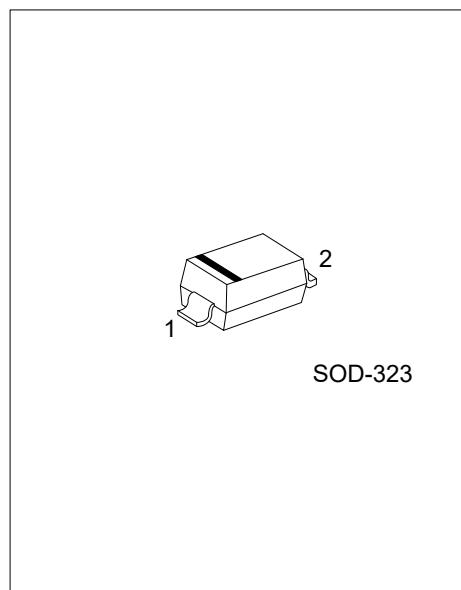
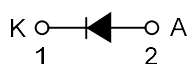
The UTC **BAS914** is high-speed switching diode, it uses UTC's advanced technology to provide customers with high switching speed, etc.

The UTC **BAS914** is suitable for high-speed switching in e.g. surface mounted circuits.

FEATURES

* High switching speed

SYMBOL



SOD-323

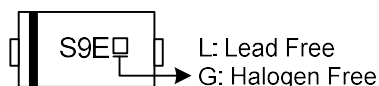
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
BAS914L-CB2-R	BAS914G-CB2-R	SOD-323	K	A	Tape Reel

Note: Pin Assignment: K: Cathode A: Anode

BAS914G-CB2-R (1) Packing Type (2) Package Type (3) Green Package	(1) R: Tape Reel (2) CB2: SOD-323 (3) G: Halogen Free and Lead Free, L: Lead Free
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MARKING



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

PARAMETER			SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage			V _{RRM}	100	V
Continuous Reverse Voltage			V _R	100	V
Continuous Forward Current			I _F	200	mA
Peak Forward Surge Current			I _{FMS}	500	mA
Non-Repetitive Peak Forward Current	Square Wave, T _A =25°C Prior to urge	t=1μs	I _{FSM}	4	A
		t=1ms		1	A
		t=1s		0.5	A
Total Power Dissipation (Note 2)			P _D	200	mW
Operating Junction Temperature			T _J	-40 ~ +150	°C
Storage Temperature			T _{STG}	-55 ~ +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 an FR-4 PCB.

■ THERMAL DATA

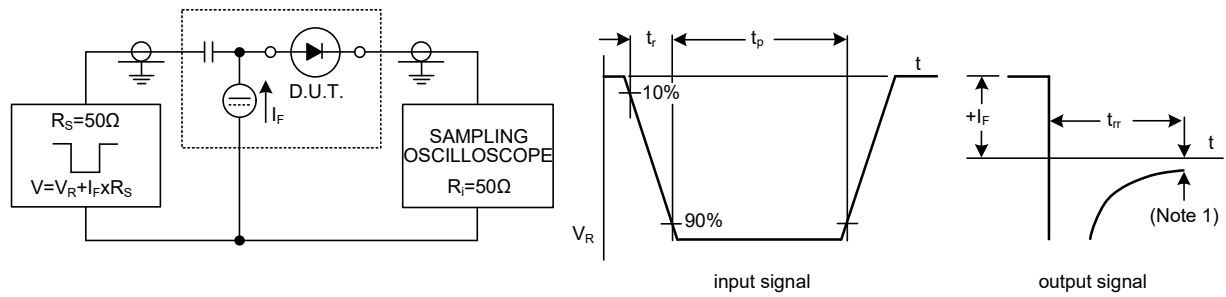
PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ _{JA}	635	°C/W
Junction to Case	θ _{JC}	350	°C/W

Notes: Device mounted on an FR-4 PCB.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	V _{BR}	I _R =100μA	100			V
Forward Voltage	V _F	I _F =10mA			1	V
		I _F =50mA			1	V
Reverse Current	I _R	V _R =20V			25	nA
		V _R =75V			5	μA
Diode Capacitance	C _d	f=1MHz, V _R =0			4	pF
Reverse Recovery Time	t _{rr}	When Switched from I _F =10mA to I _R =10mA, R _L =100Ω, Measured at I _R =1mA, See Fig.1			4	ns

■ TEST CIRCUITS AND WAVEFORMS

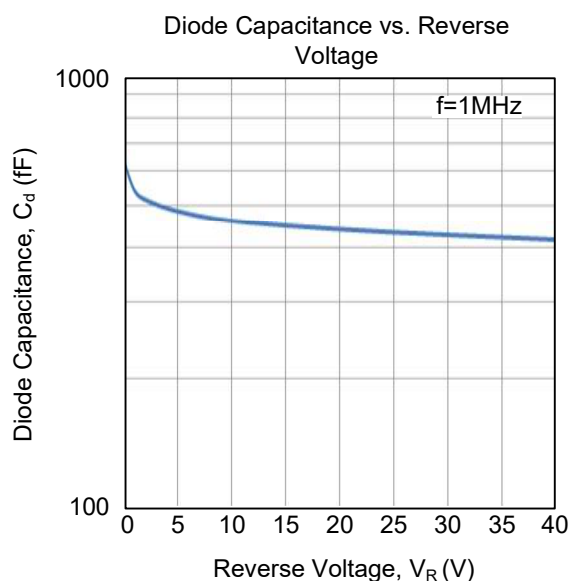
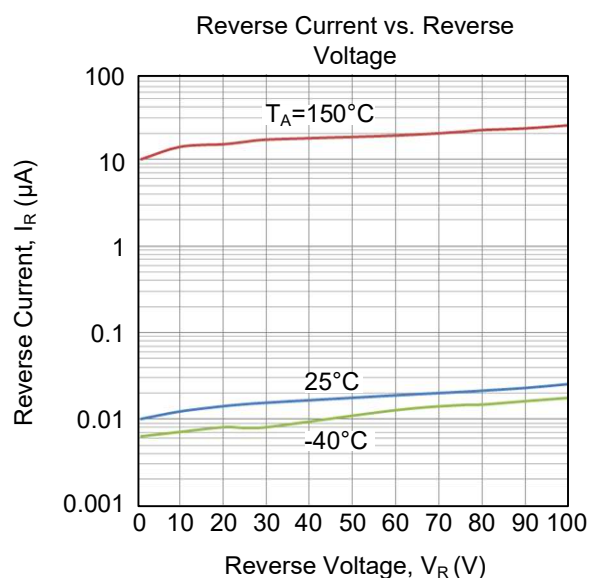
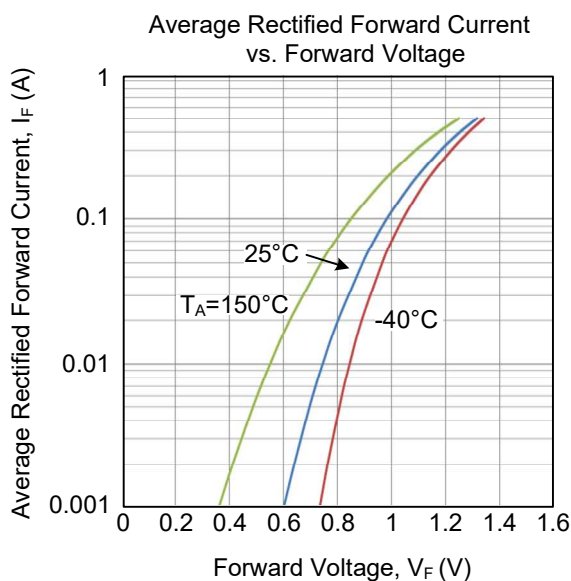


Note 1. $I_R=1\text{mA}$.

Input signal: reverse pulse rise time $t_r=0.6\text{ns}$; reverse voltage pulse duration $t_p=100\text{ns}$; duty factor $\delta=0.05$;
Oscilloscope: rise time $t_r=0.35\text{ns}$.

Fig.1 Reverse Recovery Voltage Test Circuit and Waveforms

■ TYPICAL CHARACTERISTICS



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