



BAT42VS

Preliminary

DIODE

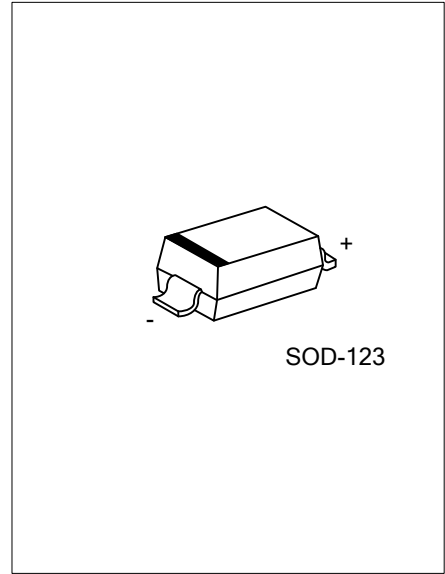
SMALL SIGNAL PLANAR SCHOTTKY DIODE

DESCRIPTION

Planar Schottky diodes are encapsulated in the SOD-123 small plastic SMD package. Single diodes and dual diodes with different pin configuration are available.

FEATURES

- * Low forward voltage
- * Guard ring protected
- * Small plastic SMD package
- * feature very low turn-on voltage and fast switching



ORDERING INFORMATION

Ordering Number	Package	Pin Assignment		Packing
		1	2	
BAT42VSG-CA2-R	SOD-123	A	K	Tape Reel

Note: Pin assignment: A: Anode K: Cathode

<p>BAT42VSG-CA2-R</p>	<p>(1) R: Tape Reel</p> <p>(2) CA2: SOD-123</p> <p>(3) G: Halogen Free and Lead Free</p>
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MARKING



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

PARAMETER	SYMBOL	RATINGS	UNIT
PER DIODE			
Continuous Reverse Voltage	V_R	30	V
Continuous Forward Current	I_F	200	mA
Repetitive Peak Forward Current ($t_P < 1\text{s}$, $\delta \leq 0.5$)	I_{FRM}	500	mA
Non-repetitive Peak Forward Current ($t_P < 10\text{ms}$)	I_{FSM}	400	mA
Power Dissipation ($T_A \leq 25^\circ\text{C}$)	P_D	200	mW
Junction Temperature	T_J	+125	$^\circ\text{C}$
Storage Temperature	T_{STG}	-60 ~ +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 CHARACTERISTICS

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	625	$^\circ\text{C}/\text{W}$

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	V_F	$I_F = 10\text{mA}$			0.4	V
		$I_F = 50\text{mA}$			0.65	V
		$I_F = 200\text{mA}$			1.00	V
Reverse Current	I_R	$V_R = 25\text{V}$			0.5	μA
Reverse Recovery Time	t_{rr}	When switched from $I_F = 10\text{mA}$ to $I_R = 10\text{mA}$, $R_L = 100\Omega$ measured at $I_R = 1\text{mA}$			5.0	ns
Diode Capacitance	C_D	$f = 1\text{MHz}$, $V_R = 1\text{V}$		7		pF

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