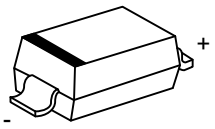
BAT42VS

Preliminary ***DIODE***

SMALL SIGNAL PLANAR SCHOTTKY DIODE



SOD-123

■ 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

BAT42VSG-CA2-R

(1)Packing Type	(1) R: Tape Reel
(2)Package Type	(2) CA2: SOD-123
(3)Green Package	(3) G: Halogen Free and Lead Free

■ MARKING

■ ABSOLUTE MAXIMUM RATINGS (T_A = 25°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 <1s, δ≤0.5)	I_{FRM}	500	mA
Non-repetitive Peak Forward Current (t_P <10ms)	I_{FSM}	400	mA
Power Dissipation (T_A ≤ 25°C)	P_D	200	mW
Junction Temperature	T_J	+125	°C
Storage Temperature	T_{STG}	-60 ~ +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 CHARACTERISTICS

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	625	°C/W

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

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