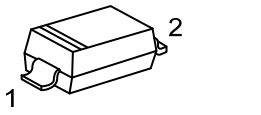
BAT165WS

Preliminary ***DIODE***

SCHOTTKY BARRIER DIODES



SOD-323

■ DESCRIPTION

Planar Schottky barrier diodes are encapsulated in the SOD-323 small plastic SMD package. Single diodes and dual diodes with different pin configuration are available.

■ FEATURES

* Forward current: 750 mA
* Reverse voltage: 40 V
* For low-loss, fast-recovery, meter protection, bias isolation and clamping applications

■ SYMBOL

■ ORDERING INFORMATION

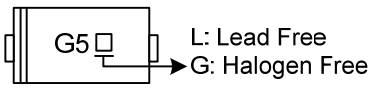
Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
BAT165WSL-CB2-R	BAT165WSG-CB2-R	SOD-323	K	A	Tape Reel

Note: Pin Assignment: K: Cathode A: Anode

BAT165WSG-CB2-R

(1)Packing Type	(1) R: Tape Reel
(2)Package Type	(2) CB2: SOD-323
(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	40	V
Continuous Forward Current	I_F	750	mA
Repetitive Peak Forward Current (50/60Hz, sinus)	I_{FRM}	500	mA
Non-repetitive Peak Forward Current (t_P < 10ms)	I_{FSM}	2.5	A
Junction Temperature	T_J	+125	°C
Storage Temperature	T_{STG}	-60 ~ +150	°C
PER DEVICE			
Power Dissipation (T_A =25°C)	P_D	550	mW

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
Junction to Ambient	θ_{JA}	230	°C/W
Junction to Soldering Point (Note 2)	θ_{JS}	95	°C/W

Notes: 1. Device mounted on an FR4 PCB, single-sided copper, tin-plated, mounting pad for cathode 1 cm^2 .
2. Soldering point of the cathode tab.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	V_F	I_F = 10mA	0.23		0.4	V
		I_F = 100mA	0.32		0.47	V
		I_F = 250mA	0.35		0.54	V
		I_F = 750mA	0.44		0.74	V
Reverse Current (Note)	I_R	V_R = 30V			12	μA
		V_R = 40V			50	μA
		V_R = 40V, T_A = 60°C			900	μA
Diode Capacitance	C_D	V_R = 10V, f = 1 MHz			12	pF

Note: Pulsed test: t_P = 300 μs; D = 0.01.