

Small Signal Product

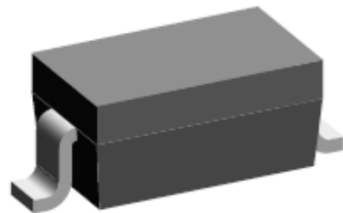
SOD-323 20~40V/1A Schottky Diode

FEATURES

- Low Forward Voltage Drop
- Surface mount device type
- Moisture sensitivity level 1
- Pb free and RoHS compliant

MECHANICAL DATA

- Case: Bend lead SOD-323 package
- High temperature soldering guaranteed: 260°C/10s
- Weight: 4.3mg (approximately)



SOD-323



APPLICATION

- General purpose rectification application

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)					
PARAMETER	SYMBOL	VALUE			UNIT
		B5817WS	B5818WS	B5819WS	
Non-Peak Repetitive Reverse Voltage	V _{RM}	20	30	40	V
Peak Repetitive Reverse Voltage	V _{RRM}	20	30	40	V
Working Peak Reverse Voltage	V _{RWM}	20	30	40	V
DC Blocking Voltage	V _R	20	30	40	V
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	V
Average Rectified Output Current	I _O	1			A
Peak Forward Surge Current @t=8.3ms	I _{FSM}	9			A
Repetitive Peak Forward Current	I _{FRM}	1.5			A
Power Dissipation	P _D	250			mW
Thermal Resistance form Junction to Ambient	R _{thJA}	400			°C/W
Junction Temperature	T _J	125			°C
Storage Temperature Range	T _{STG}	- 55 to + 150			°C

PARAMETER	TEST CONDITION	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	B5817WS	$V_{(BR)}$	20		V
	B5818WS		30		
	B5819WS		40		
Reverse Voltage Leakage Currer	B5817WS	I_R	--	1	mA
	B5818WS		--		
	B5819WS		--		
Forward Voltage	B5817WS	V_F	at $I_F = 1A$	0.45	V
			at $I_F = 3A$	0.75	
	B5818WS		at $I_F = 1A$	0.55	V
			at $I_F = 3A$	0.875	
	B5819WS		at $I_F = 1A$	0.6	V
			at $I_F = 3A$	0.9	
Diode Capacitance	$V_R=4V, f=1.0MHz$	C_D	--	120	pF

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RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig. 1 Typical Forward Characteristics

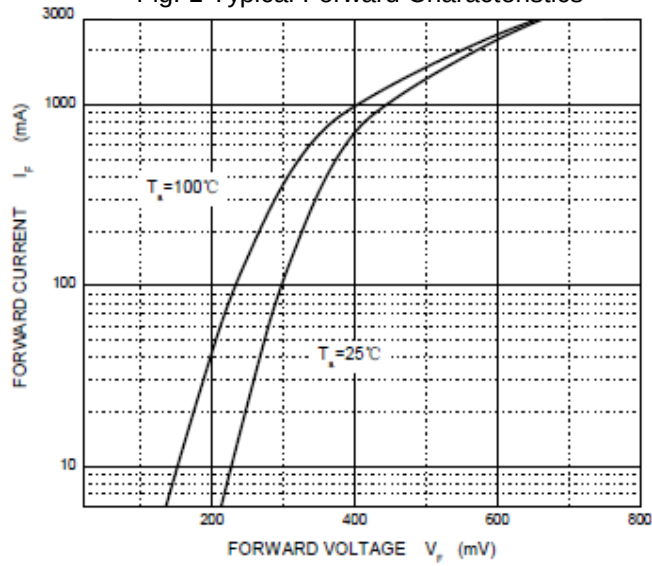


Fig. 2 Typical Reverse Characteristics

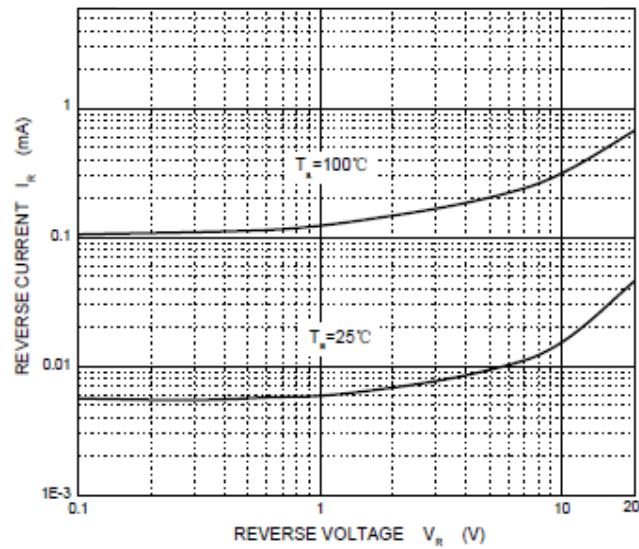


Fig. 3 Typical Capacitance vs. VR

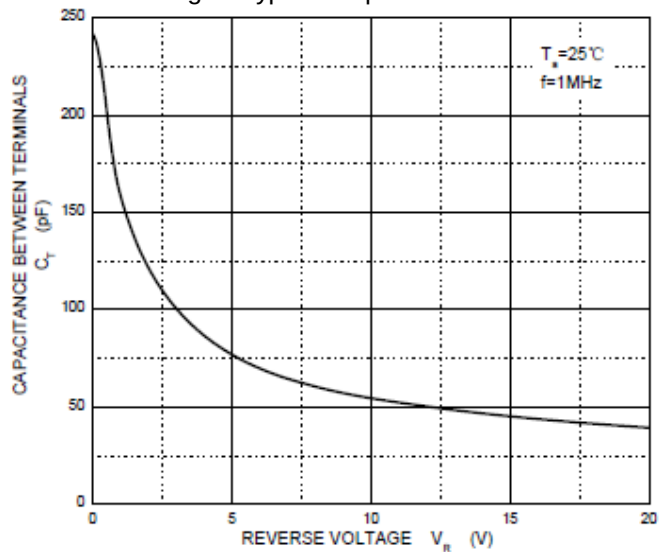
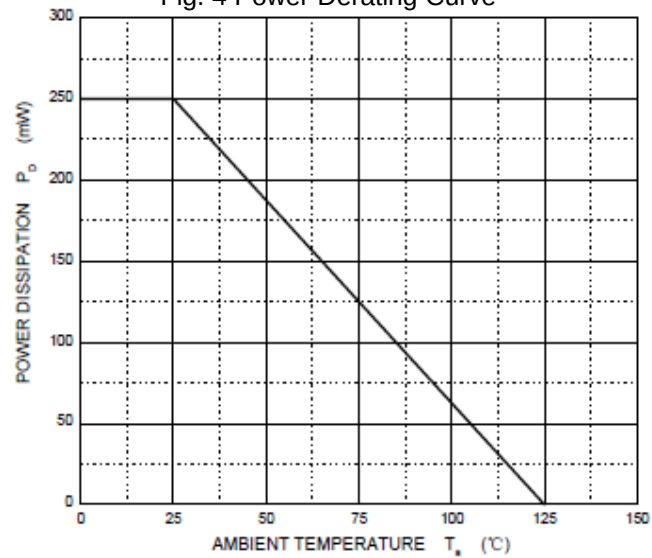


Fig. 4 Power Derating Curve



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ORDERING INFORMATION

PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
B5817WS	(Note)	RQ	G	SOD-323	3K / 7" Reel	SJ
B5818WS		RQ	G	SOD-323	3K / 7" Reel	SK
B5819WS		RQ	G	SOD-323	3K / 7" Reel	SL

Note: Indicator of manufacturing site for manufacture special control, if empty means no special control requirement

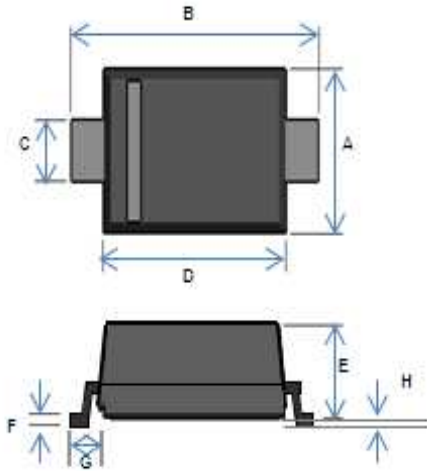
EXAMPLE

PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
B5817WS RQG	B5817WS		RQ	G	Green compound
B5817WS-M0 RQG	B5817WS	M0	RQ	G	Green compound

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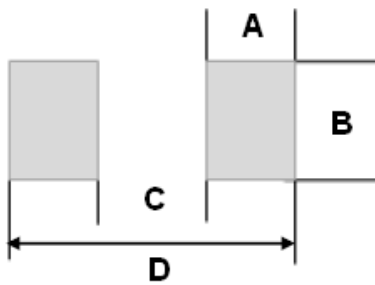
PACKAGE OUTLINE DIMENSIONS

SOD-323



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.15	1.40	0.045	0.055
B	2.30	2.70	0.091	0.106
C	0.25	0.45	0.010	0.018
D	1.60	1.80	0.063	0.071
E	0.80	1.00	0.031	0.039
F	0.05	0.17	0.002	0.007
G	0.475 REF		0.19 REF	
H	-	0.10	-	0.004

SUGGESTED PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
A	0.63	0.025
B	0.83	0.033
C	1.60	0.063
D	2.86	0.113

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