



HAICHUANG SEMI

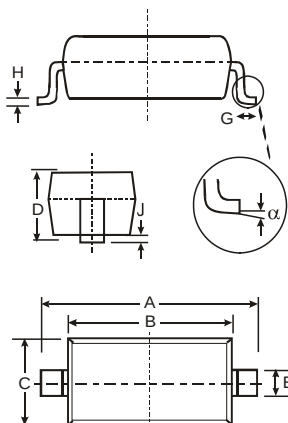
B5817W/B5818W/B5819W

40V/1A SCHOTTKY BARRIER DIODE

Features

- Low Forward Voltage Drop.
- Surface Mounted Device.
- Pb free and RoHS compliant.

DEVICE	MARKING
B5817W	SJ
B5818W	SK
B5819W	SL



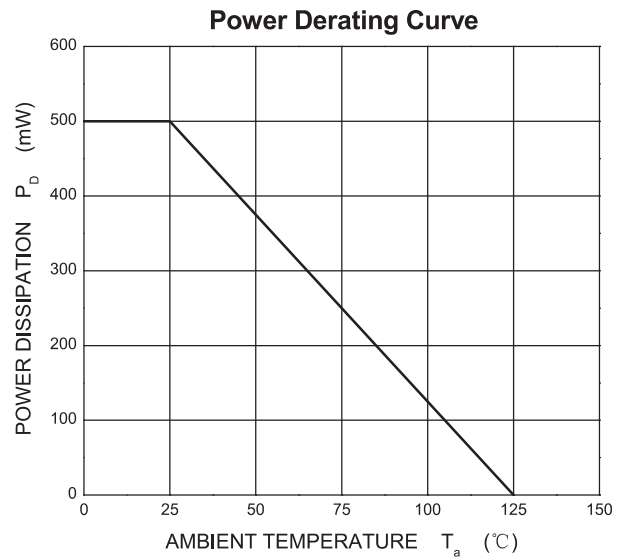
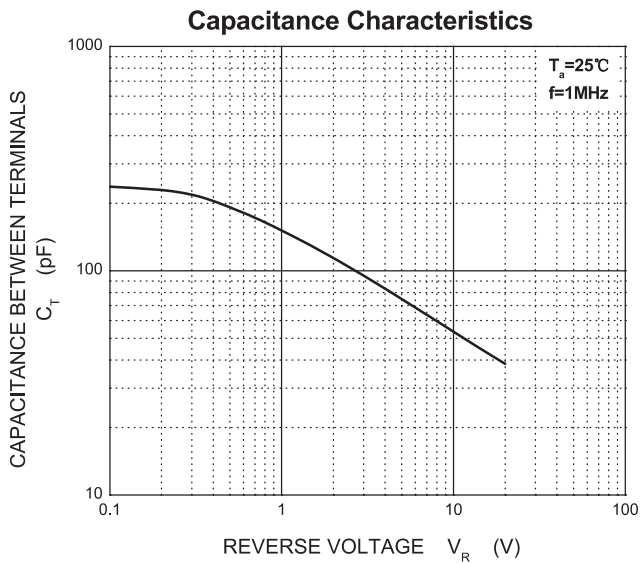
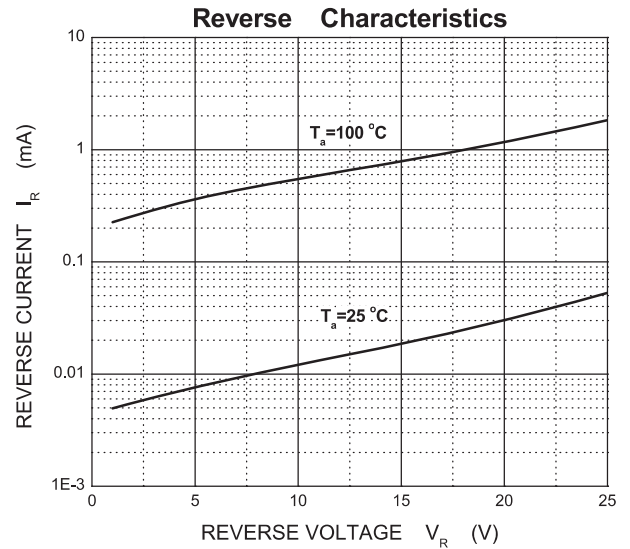
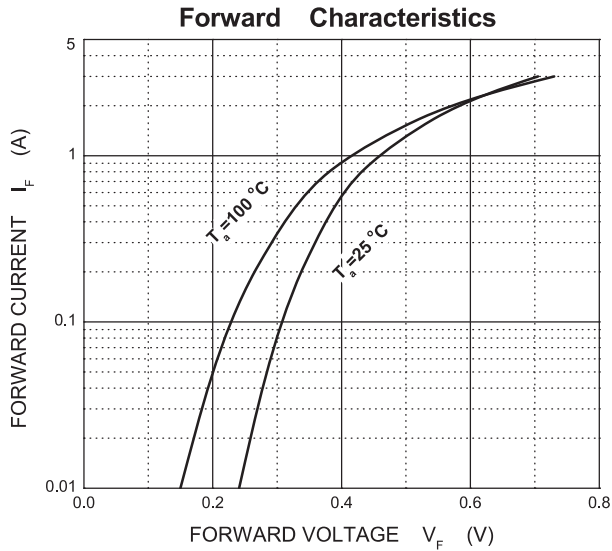
SOD-123		
Dim	Min	Max
A	3.55	3.85
B	2.55	2.85
C	1.40	1.70
D	—	1.35
E	0.45	0.65
	0.55 Typical	
G	0.25	—
H	0.11 Typical	
J	—	0.10
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

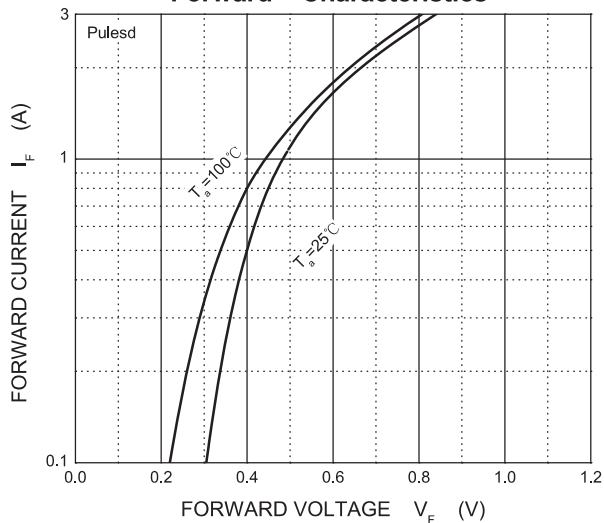
PARAMETER	SYMBOL	VALUE			UNIT
		B5817W	B5818W	B5819W	
Non-Peak Repetitive Reverse Voltage	V_{RM}	20	30	40	V
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	V
Working Peak Reverse Voltage	V_{RWM}	20	30	40	V
DC Blocking Voltage	V_R	20	30	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current	I_O	1			A
Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	9			A
Repetitive Peak Forward Current	I_{FRM}	1.5			A
Power Dissipation	P_D	500			mW
Thermal Resistance form Junction to Ambient	R_{thJA}	250			$^\circ\text{C/W}$
Junction Temperature	T_J	125			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 150			$^\circ\text{C}$

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

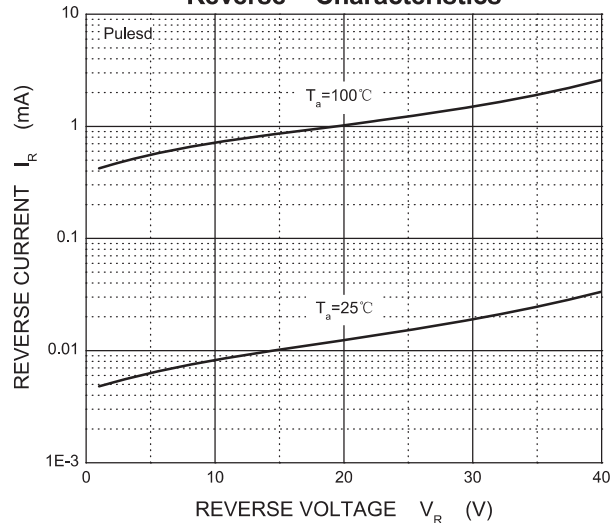
PARAMETER	TEST CONDITION	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	at $I_R = 1\text{ mA}$	$V_{(BR)}$	20		V
			30		
			40		
Reverse Voltage Leakage Current	at $V_R = 20\text{ V}$	I_R	--	1	mA
	at $V_R = 30\text{ V}$		--		
	at $V_R = 40\text{ V}$		--		
Forward Voltage	at $I_F = 1\text{ A}$	V_F		0.45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



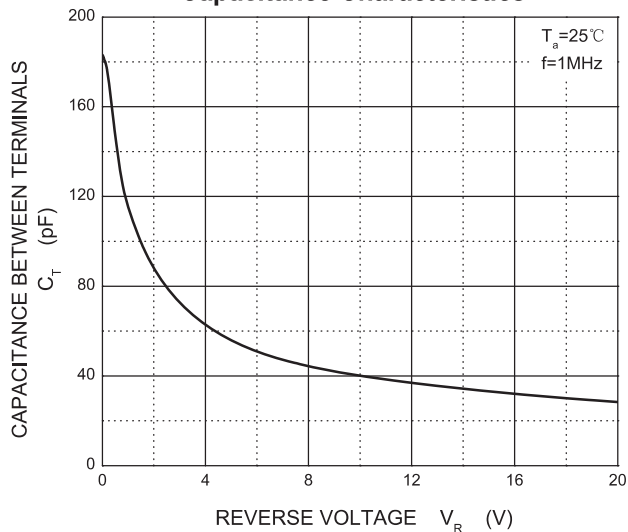
Forward Characteristics



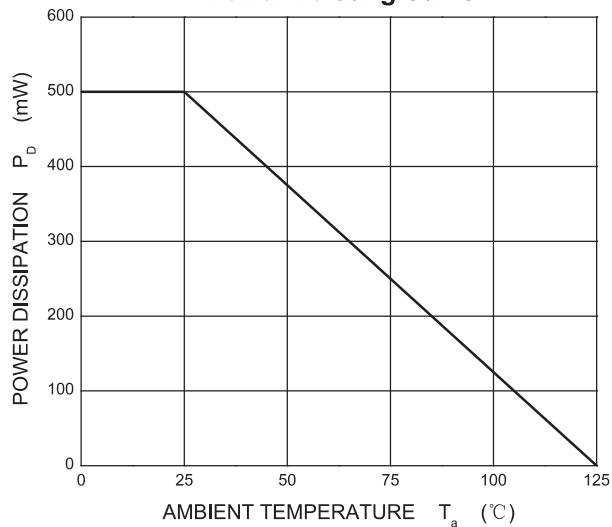
Reverse Characteristics

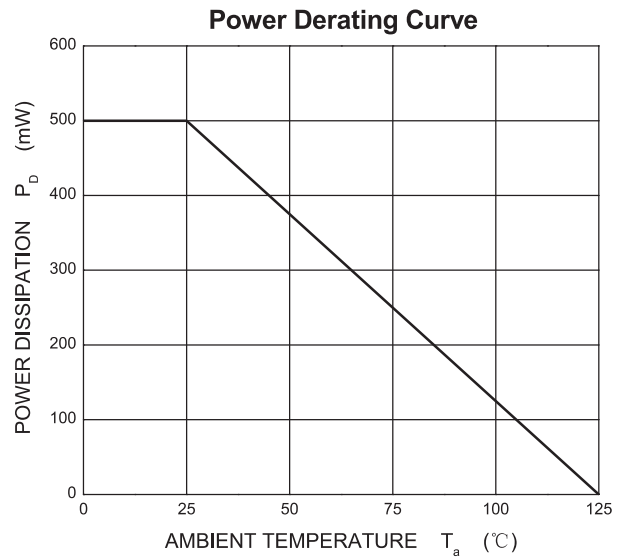
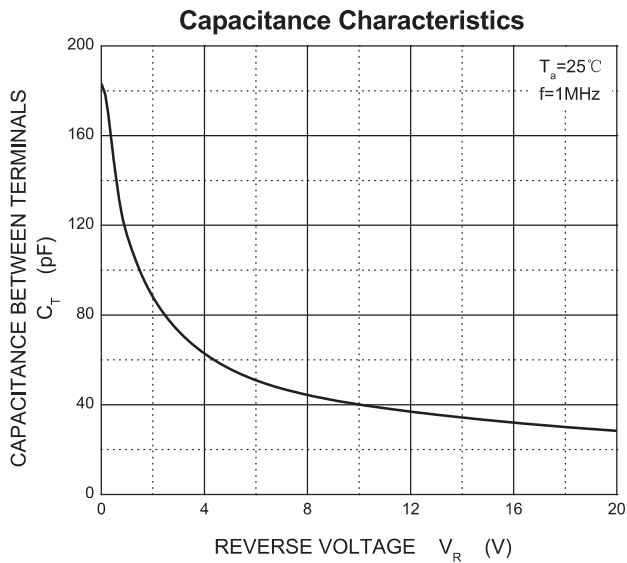
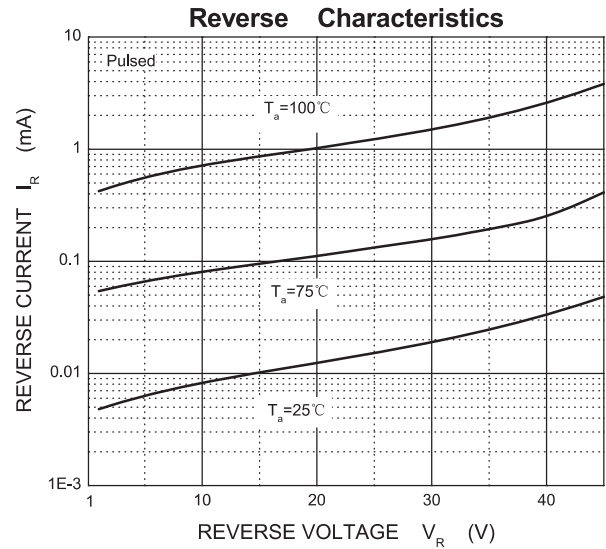
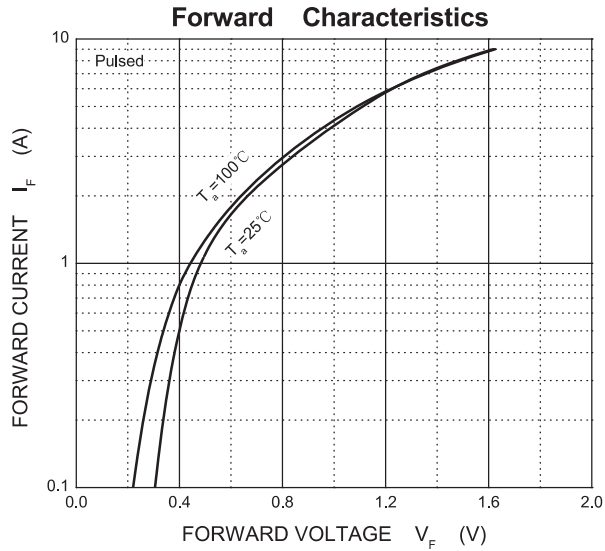


Capacitance Characteristics



Power Derating Curve





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