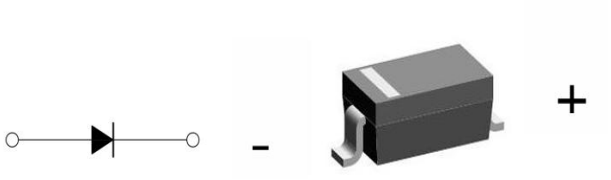
Schottky Barrier Diode

Parameter	Value	Unit
V_R	20~40	V
$I_{F(AV)}$	1.0	A



SOD-323

Features

- Low Forward Voltage
- Surface Mount device
- For use in low voltage high frequency inverters and polarity protection applications

Absolute Maximum Ratings (Ta=25℃unless otherwise noted)

Parameter		Symbol	Value	Unit
Reverse Voltage	B5817WS	V_R	20	V
	B5818WS		30	
	B5819WS		40	
Average Forward Rectified Current		$I_{F(AV)}$	1.0	A
Non-Repetitive Peak Forward Surge Current (t = 8.3ms)		I_{FSM}	9	A
Power Dissipation		P_{tot}	400	mW
Operating Temperature Range		T_j	- 55 to + 125	℃
Storage Temperature Range		T_{stg}	- 55 to + 125	℃

Electrical Characteristics (Ta=25℃unless otherwise noted)

Parameter		Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R =1mA	B5817WS	$V_{(BR)R}$	20	-	V
	B5818WS		30	-	
	B5819WS		40	-	
Forward Voltage at I_F =1A	B5817WS	V_F	-	0.45	V
	B5818WS		-	0.55	
	B5819WS		-	0.6	
at I_F =3A	B5817WS		-	0.75	
	B5818WS		-	0.875	
	B5819WS		-	0.9	
Reverse Voltage Leakage Current					
at V_R = 20V	B5817WS	I_R	-	1.0	mA
at V_R = 30V	B5818WS		-	1.0	
at V_R = 40V	B5819WS		-	1.0	
Total Capacitance at V_R = 4V, f = 1MHz		Ctot	-	120	pF

Typical Characteristics

Fig. 1 Forward Characteristics

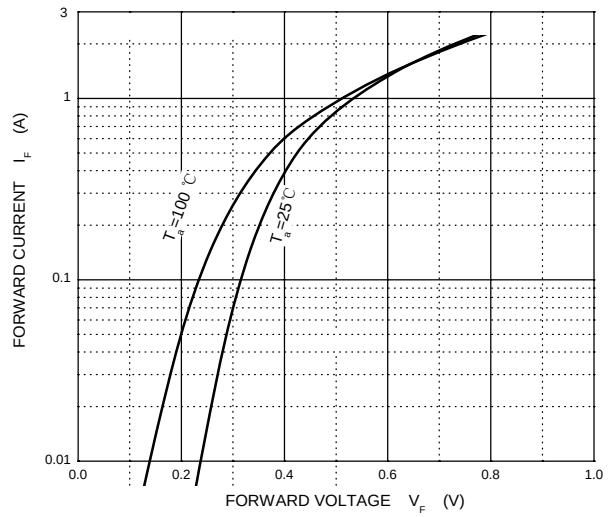


Fig. 2 Reverse Characteristics

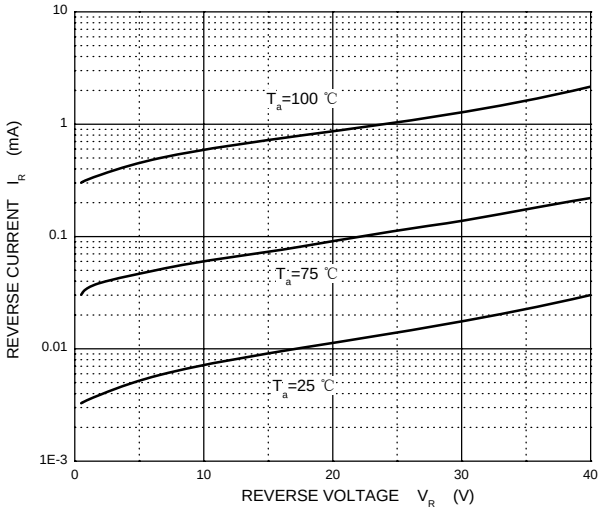


Fig. 3 Capacitance Characteristics

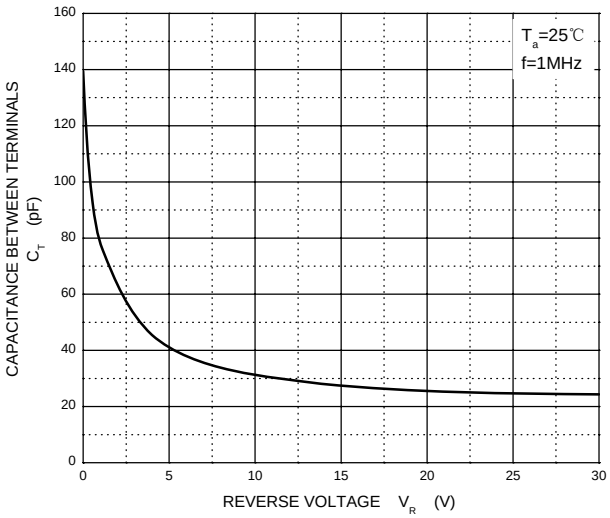
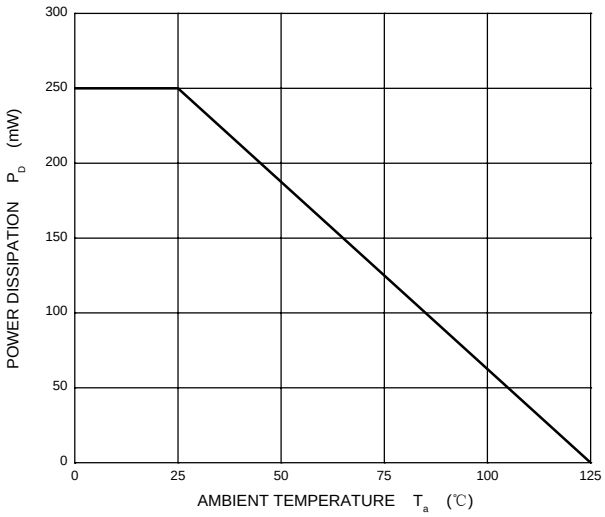
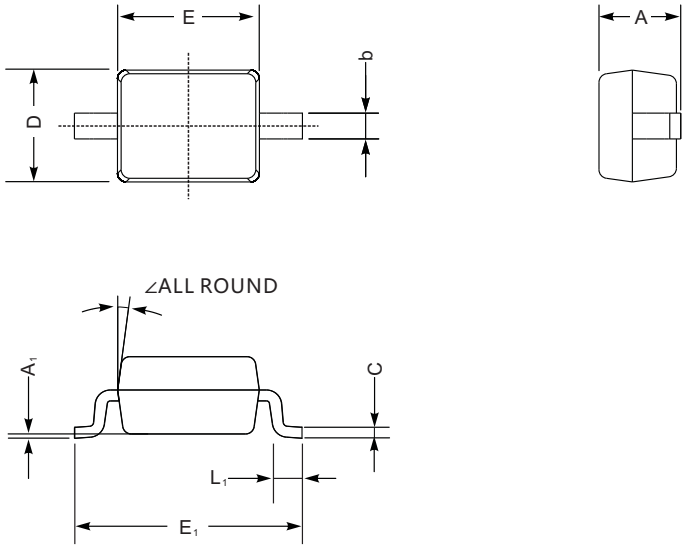


Fig. 4 Power Derating Curve



Package Outline (Units: mm)

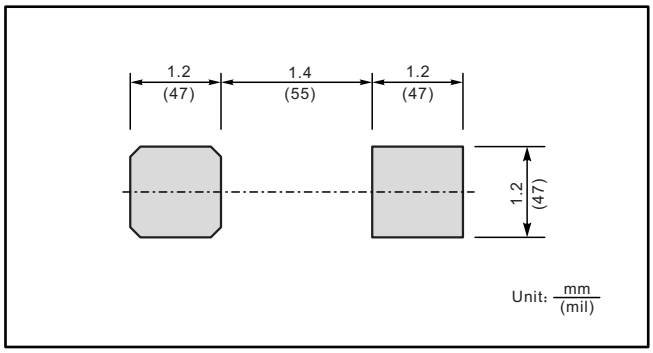
Plastic surface mounted package; 2 leads



SOD-323 mechanical data

UNIT		A	C	D	E	E_1	b	L_1	A_1	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	

The recommended mounting pad size



Marking

Type number	Marking code
B5817WS	SJ
B5818WS	SK
B5819WS	SL

***Important Usage Information and Disclaimer**

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