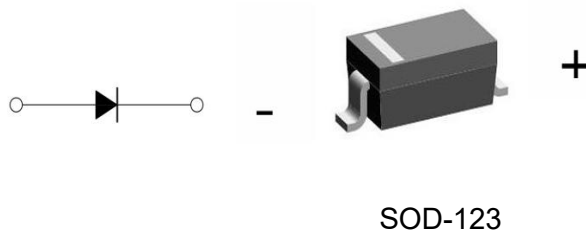


Schottky Barrier Diode

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



Features

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

Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	20 30 40	V
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}	450	mW
Operating Temperature Range	T_j	- 55 to + 125	°C
Storage Temperature Range	T_{stg}	- 55 to + 125	°C

Electrical Characteristics (Ta=25°C unless otherwise noted)

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

Typical Characteristics

Fig. 1 Forward Characteristics

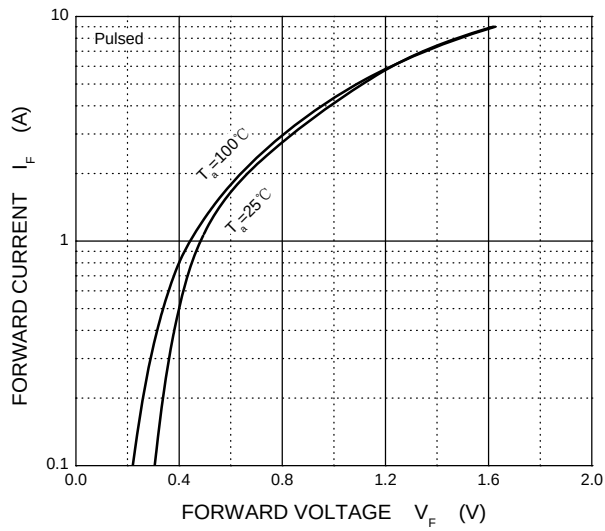


Fig. 2 Reverse Characteristics

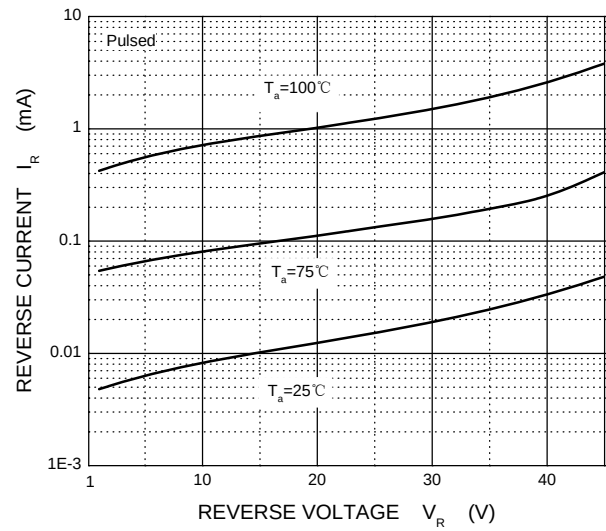


Fig. 3 Capacitance Characteristics

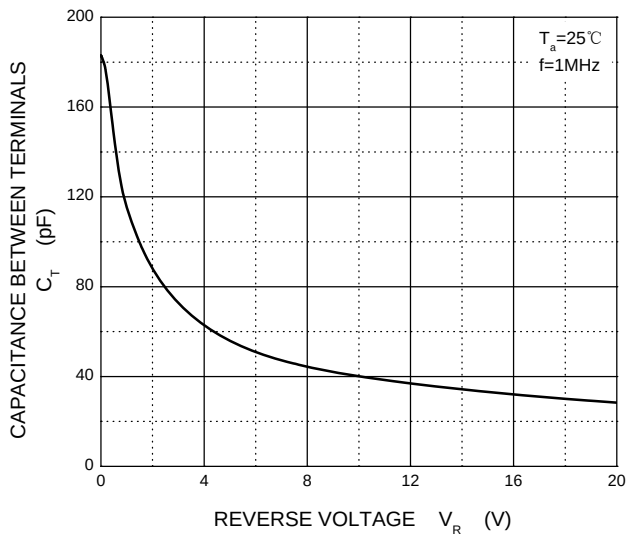
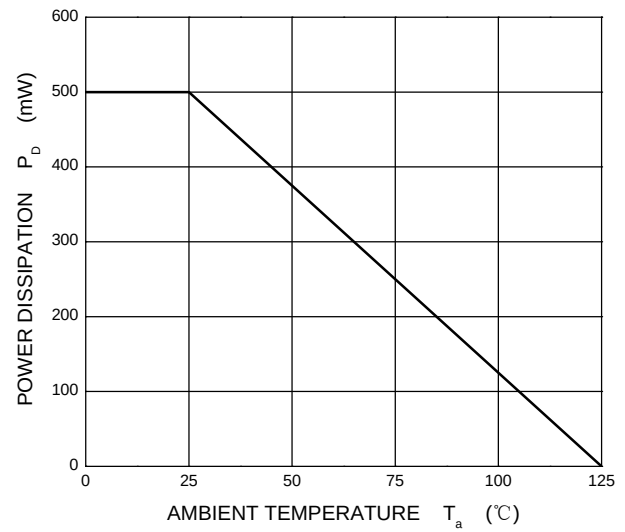
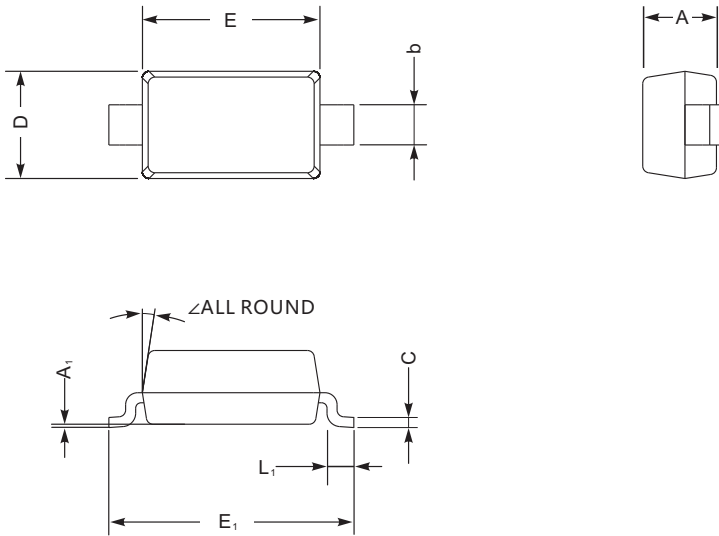


Fig. 4 Power Derating Curve



Package Outline (Units: mm)

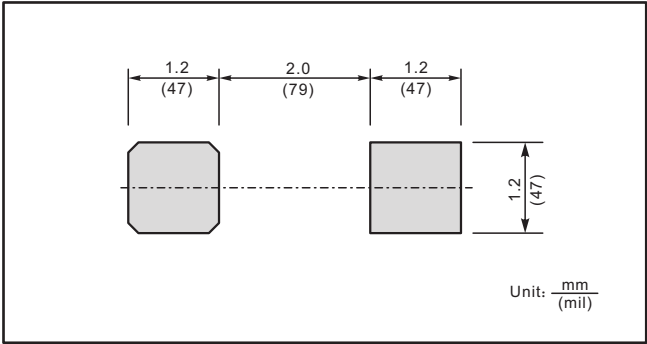
Plastic surface mounted package; 2 leads



SOD-123 mechanical data

UNIT		A	C	D	E	E ₁	L ₁	b	A ₁	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size



Marking

Type number	Marking code
B5817W	SJ
B5818W	SK
B5819W	SL

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