宏 迦 橙
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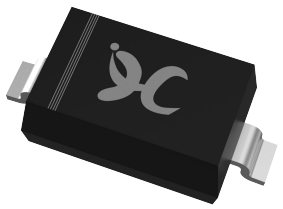
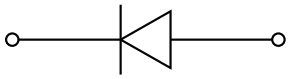
B5817W THRU B5819W

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

SOD-123





Features

- V_R 20V/30V/40V
- $I_{F(AV)}$ 1A
- For use in low voltage, high frequency inverters
- Free wheeling, and polanty protection applications

Applications

For use in low voltage high frequency circuit signals.

Mechanical Data

- Case: SOD-123
  Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Cathode line denotes the cathode end

Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	B5817W	B5818W	B5819W
Maximum repetitive peak reverse voltage	V_{RRM}	V	20	30	40
Maximum RMS Voltage	V_{RMS}	V	14	21	28
Maximum DC Blocking Voltage	V_{DC}	V	20	30	40
Maximum Average Forward Rectified Current	$I_{F(AV)}$	A	1.0		
Non-repetitive Peak Forward Surge Current @t=8.3ms Half-sine wave	I_{FSM}	A	9.0		
Power Dissipation	P_d	mW	500		
Storage temperature	T_{stg}	°C	-55~+150		
Junction temperature	T_j	°C	-55 ~+150		
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	250		

Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	B5817W	B5818W	B5819W
Maximum instantaneous forward voltage	I_F=1.0A	V_{F1}	V	0.450	0.550	0.600
	I_F=3.0A	V_{F2}		0.750	0.875	0.900
Maximum DC reverse currentat rated DC blocking voltage	V_R=V_{RRM}	I_R	mA	1.0		
Typical junction capacitance	V_R=4.0V,f=1MHz	C_J	pF	120		

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

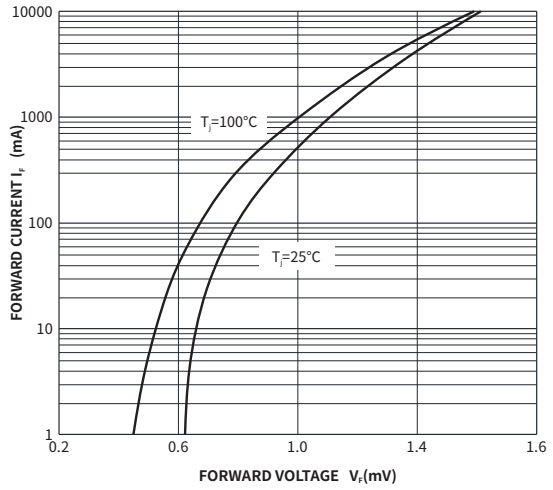


Fig.1 Typical Instaneous Forward Characteristics

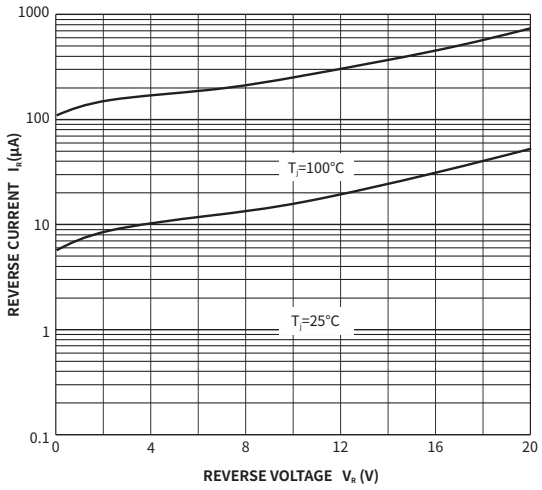


Fig.2 Typical Reverse Characteristics

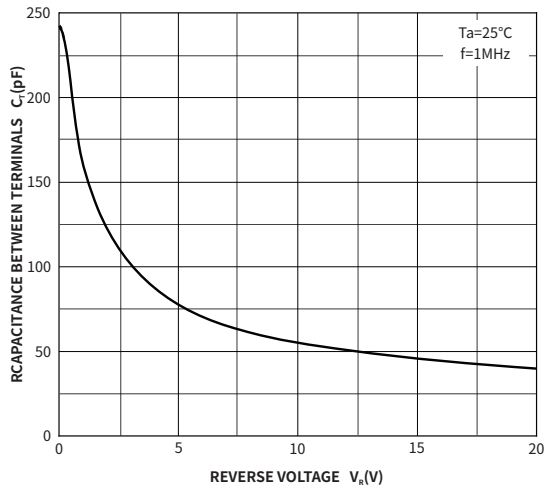


Fig.3 Typical Junction Capacitance

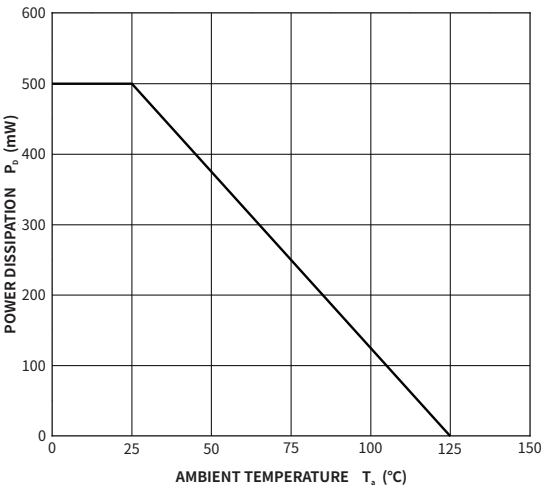
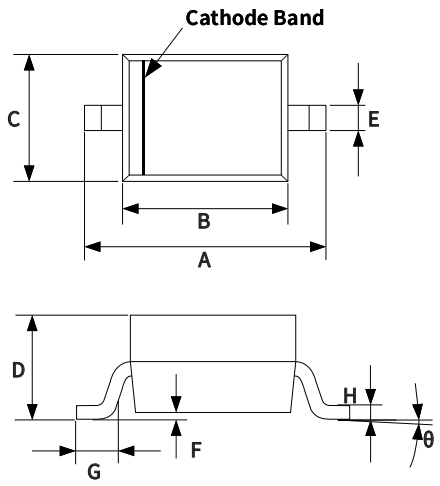


Fig.4 Power Derating Curve

Ordering Information

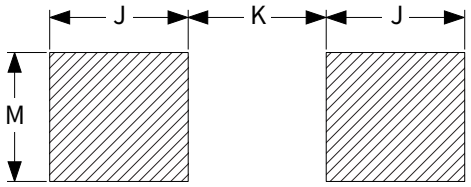
PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-123	R1	0.012	3000	30000	120000	7''

Package Outline Dimensions (SOD-123)



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	3.55	3.85	0.140	0.152
B	2.55	2.85	0.100	0.112
C	1.40	1.80	0.055	0.071
D	0.95	1.35	0.140	0.152
E	0.51	0.71	0.037	0.053
F	-	0.15	-	0.006
G	0.15	0.45	0.006	0.008
H	0.08	0.25	0.003	0.010
θ	-	8°	-	8°

Suggested Pad Layout



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	0.91	-	0.036	-
K	-	2.36	-	0.092
M	1.22	-	0.048	-