



FEATURES

- Extremely low V_F .
- Low stored charge, majority carrier Conduction.
- Low power loss/high efficient.
- MSL 1.



APPLICATIONS

- For Use In Low Voltage, High Frequency Inverters.
- Free Wheeling, And Polarity Protection Applications.



SOD-123

ORDERING INFORMATION

Type No.	Marking	Package Code
B5817W□	SJ	SOD-123

□: none is for Lead Free package;
 “G” is for Halogen Free package.

MAXIMUM RATING @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

Parameter	symbol	Value	Unit
Non-Repetitive Peak reverse voltage	V_{RSM}	24	V
Peak repetitive Peak reverse voltage Working Peak Reverse voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	20	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	V
Average Rectified output Current	I_o	1	A
Repetitive Peak Forward Current (At Rated V_R , Square Wave, 100 kHz, $T_L = 95^{\circ}\text{C}$)	I_{FRM}	625	mA
Peak forward surge current@=8.3ms	I_{FSM}	10	A
Power Dissipation	P_d	500	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	150	$^{\circ}\text{C/W}$
Junction and Storage Temperature Range	T_J, T_{STG}	-65 to+100	$^{\circ}\text{C}$



ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test Condition	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1\text{mA}$	20		V
Reverse voltage leakage current	I_R	$V_R=20\text{V}$		1	mA
Forward voltage	V_F	$I_F=1\text{A}$ $I_F=3\text{A}$		0.50 0.75	V
Diode capacitance	C_D	$V_R=4\text{V}, f=1\text{MHz}$		120	pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

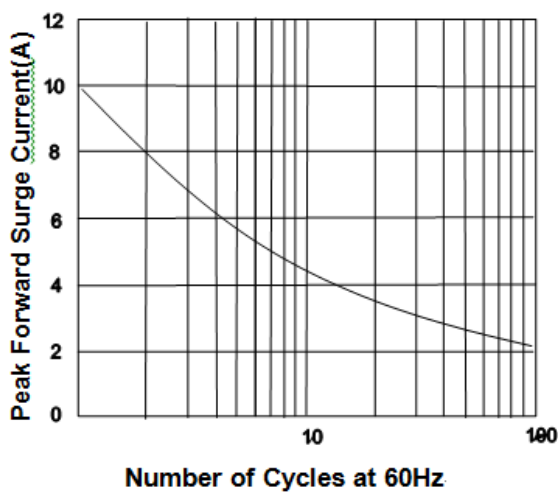
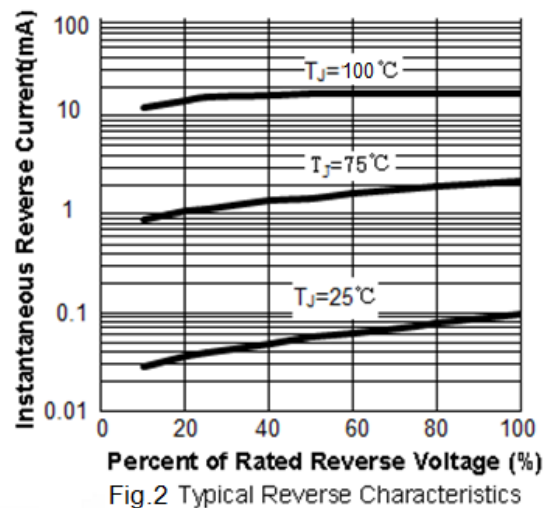
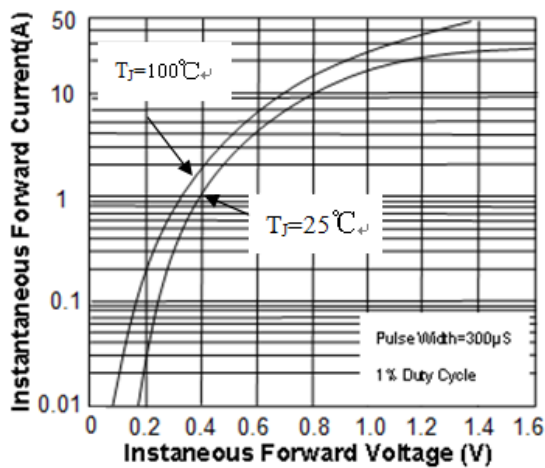


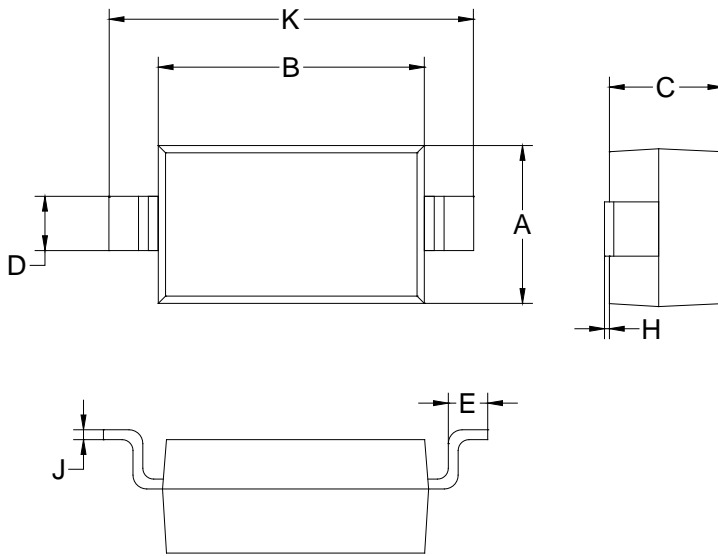
Fig.3 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

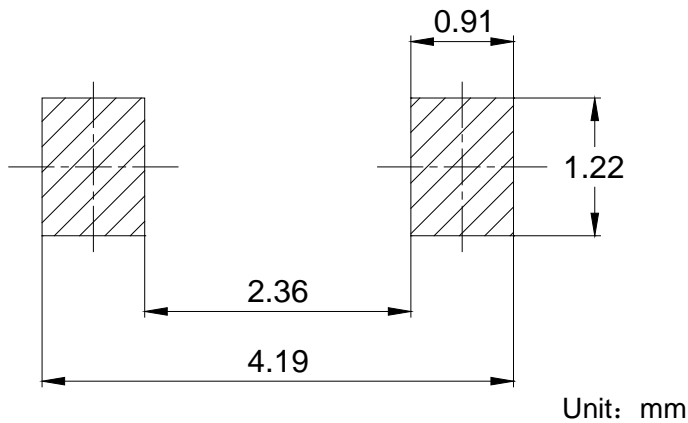
Plastic surface mounted package

SOD-123



SOD-123		
Dim	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1.00	1.30
D	0.50	0.60
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85
All Dimensions in mm		

SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
B5817W	SOD-123	3000/Tape&Reel