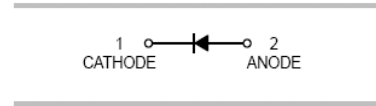




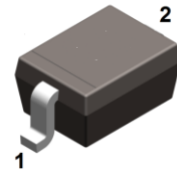
### FEATURES

- 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-323**

### ORDERING INFORMATION

Type No.	Marking	Package Code
B5817WSH	SJH	SOD-323

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

Parameter	Symbol	Value	Unit
Non-Repetitive Peak reverse voltage	$V_{RM}$	24	V
Peak repetitive Peak reverse voltage	$V_{RRM}$	20	V
Working Peak Reverse voltage	$V_{RWM}$		
DC Reverse Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	14	V
Average Rectified output Current	$I_o$	1	A
Peak forward surge current @ $t=8.3\text{ms}$	$I_{FSM}$	10	A
Power Dissipation	$P_D$	235	mW
Thermal Resistance Junction-to-Air <sup>*1</sup>	$R_{\theta JA}$	426	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Case <sup>*1</sup>	$R_{\theta JC}$	230	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Lead <sup>*1</sup>	$R_{\theta JL}$	297	$^\circ\text{C/W}$
Junction and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150	$^\circ\text{C}$

Note 1: The data tested by surface mounted on a 22mm \* 17mm \* 1mm FR4-epoxy P.C.B



## ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

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

## TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

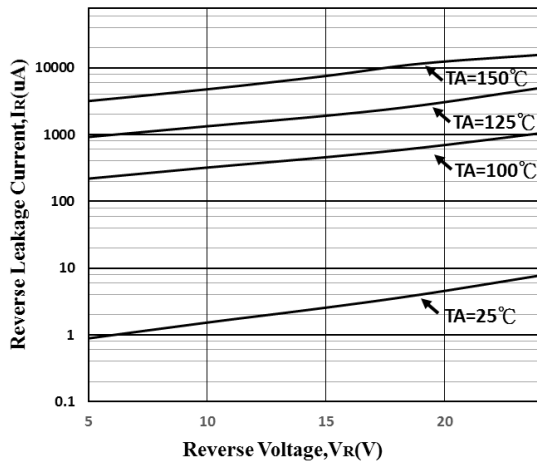


FIG 1. Typical Reverse Characteristic

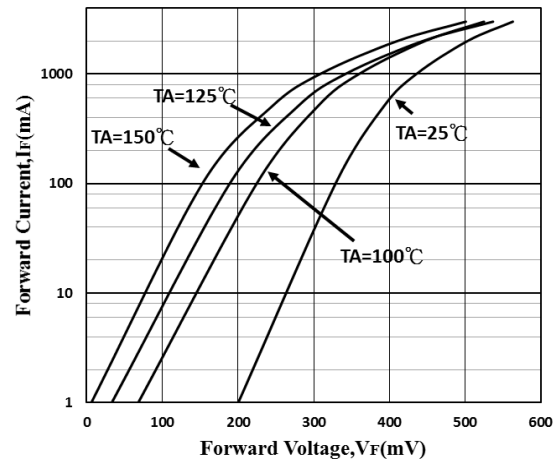


FIG 2. Typical Forward Characteristic

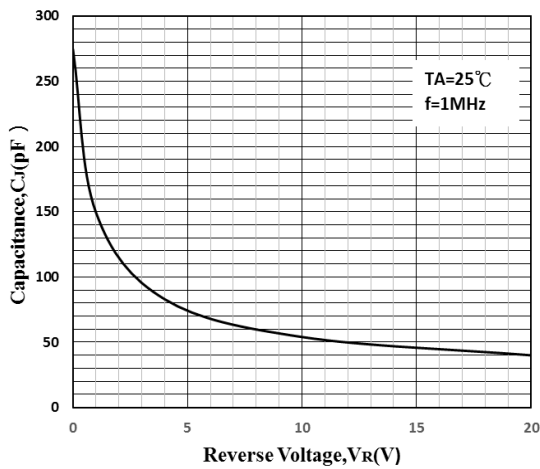


FIG 3. Capacitance vs Reverse Voltage

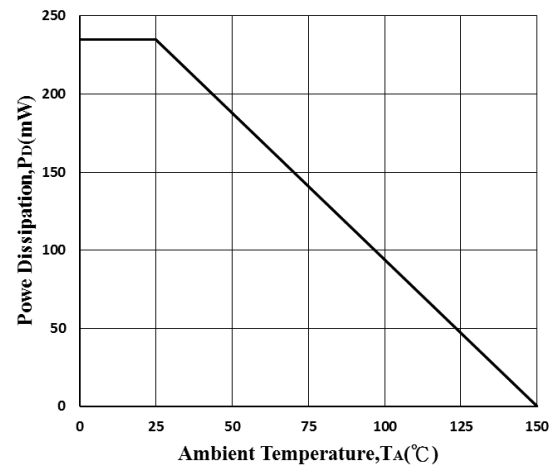


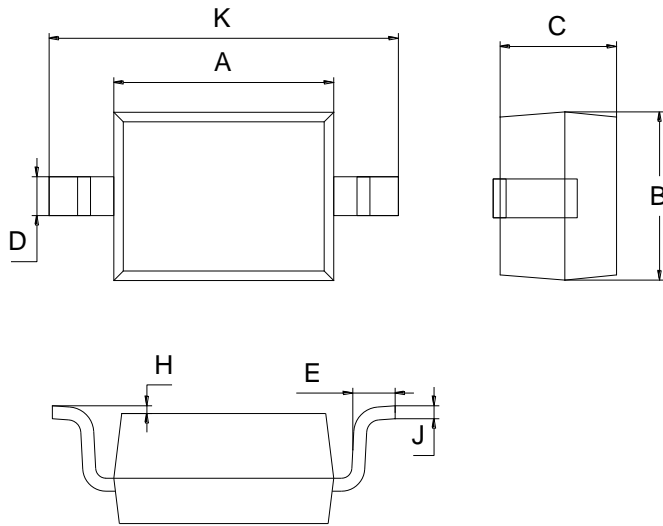
FIG 4. Power Derating Curve



## PACKAGE OUTLINE

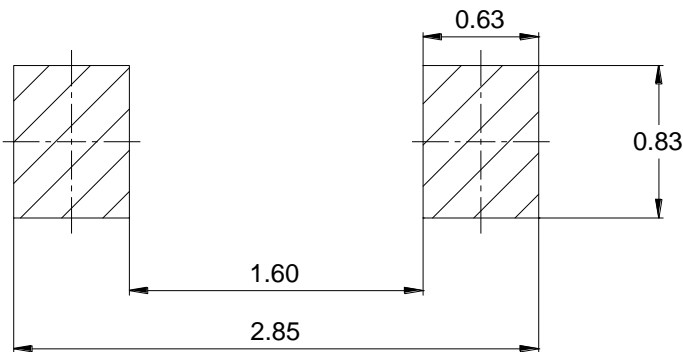
Plastic surface mounted package

SOD-323



SOD-323		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.1
J	0.05	0.15
K	2.55	2.75
All Dimensions in mm		

## SOLDERING FOOTPRINT



Unit: mm

## PACKAGE INFORMATION

Device	Package	Shipping
B5817WSH	SOD-323	3000 pcs / Tape & Reel