



Schottky Barrier Diode

SM5817WS-SM5819WS

FEATURES

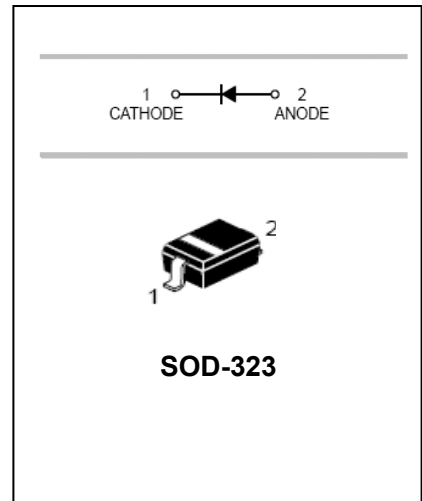
- Extremely low V_F
- Low stored charge, majority carrier conduction
- Low power loss/high efficient



Lead-free

APPLICATIONS

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



ORDERING INFORMATION

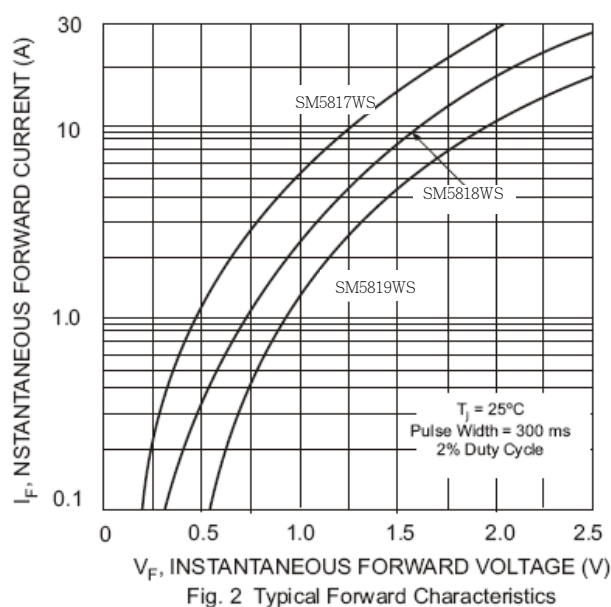
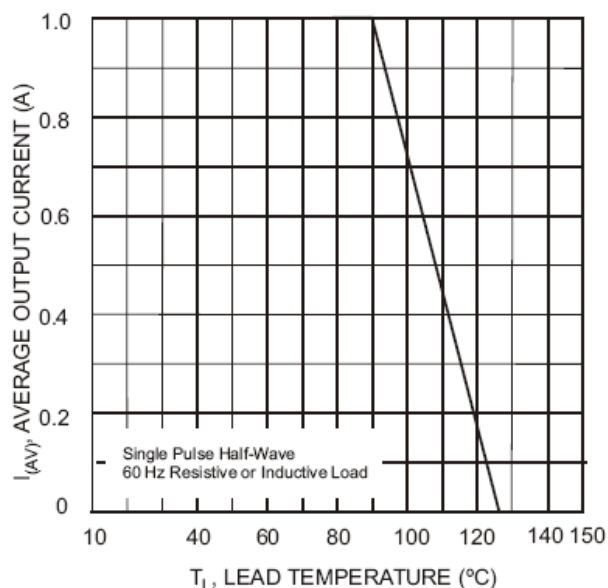
Type No.	Marking	Package Code
SM5817WS	SJ	SOD-323
SM5818WS	SK	SOD-323
SM5819WS	SL	SOD-323

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

Parameter	symbol	SM5817WS	SM5818WS	SM5819WS	Unit
Non-Repetitive Peak reverse voltage	V_{RM}	20	30	40	V
Peak repetitive Peak reverse voltage Working Peak Reverse voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	20	30	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified output Current	I_o	1			A
Peak forward surge current@=8.3ms	I_{FSM}	10			A
Power Dissipation	P_d	235			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	426			$^{\circ}\text{C}/\text{W}$
Storage temperature	T_{STG}	-55 to +150			$^{\circ}\text{C}$

**Schottky Barrier Diode****SM5817WS-SM5819WS****ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Test Condition	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1\text{mA}$			
		SM5817WS	20		V
		SM5818WS	30		
		SM5819WS	40		
Reverse voltage leakage current	I_R	$V_R=20\text{V}$			
		SM5817WS		1	mA
		$V_R=30\text{V}$			
		SM5818WS			
Forward voltage	V_F	$V_R=40\text{V}$			
		SM5819WS			
		SM5817WS	$I_F=1\text{A}$	0.45	V
			$I_F=3\text{A}$	0.75	
		SM5818WS	$I_F=1\text{A}$	0.55	
			$I_F=3\text{A}$	0.875	
		SM5819WS	$I_F=1\text{A}$	0.6	
			$I_F=3\text{A}$	0.9	
Diode capacitance	C_D	$V_R=4\text{V}, f=1\text{MHz}$		120	pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



Schottky Barrier Diode

SM5817WS-SM5819WS

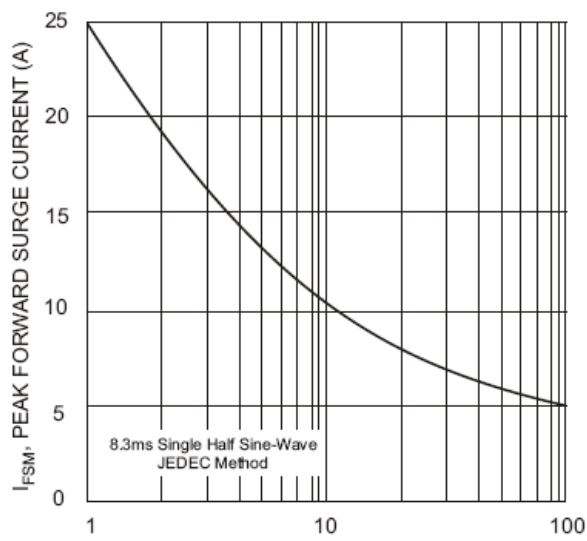


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

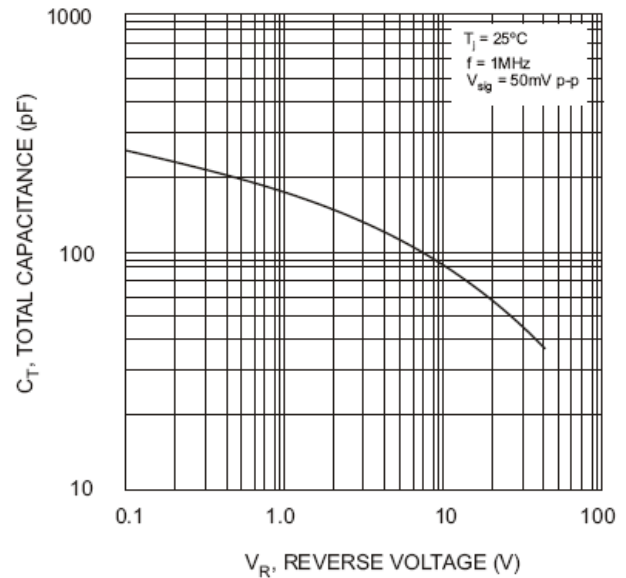
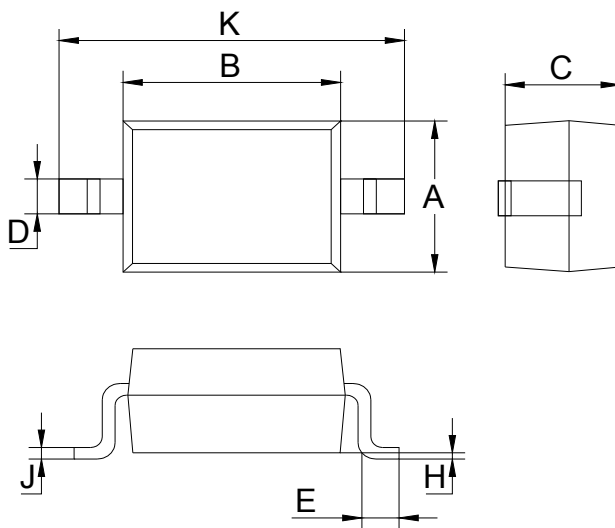


Fig. 4 Typical Total Capacitance

PACKAGE OUTLINE

Plastic surface mounted package

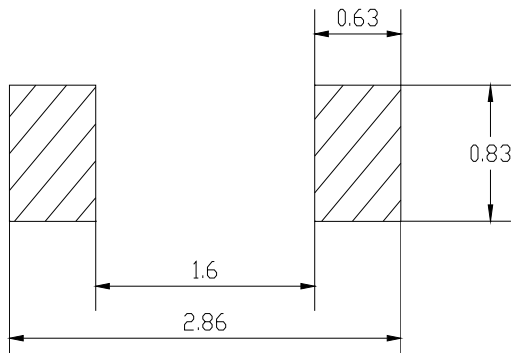
SOD-323



SOD-323		
Dim	Min	Max
A	1.275	1.325
B	1.675	1.725
C	0.9 Typical	
D	0.30 Typical	
E	0.27	0.37
H	0.02	0.1
J	0.1 Typical	
K	2.6	2.7
All Dimensions in mm		



Schottky Barrier Diode**SM5817WS-SM5819WS**

SOLDERING FOOTPRINT

Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
SM5817WS-SM5819WS	SOD-323	3000/Tape&Reel