



Schottky Barrier Diode

SM5817W-SM5819W

FEATURES

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

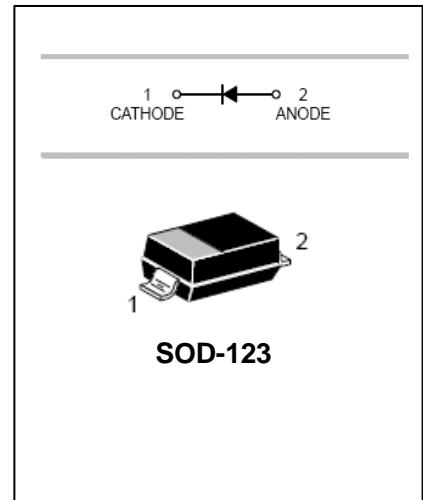


Lead-free

APPLICATIONS

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

ORDERING INFORMATION



Type No.	Marking	Package Code
SM5817W	SJ	SOD-123
SM5818W	SK	SOD-123
SM5819W	SL	SOD-123

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

Parameter	symbol	SM5817W	SM5818W	SM5819W	Unit
Non-Repetitive Peak reverse voltage	V_{RSM}	24	36	48	V
Peak repetitive Peak reverse voltage	V_{RRM}	20	30	40	V
Working Peak Reverse voltage	V_{RWM}				
DC Reverse Voltage	V_R				
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified output Current	I_o	1			A
Peak forward surge current @ $t=8.3\text{ms}$	I_{FSM}	25			A
Power Dissipation	P_d	250			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	80			$^\circ\text{C/W}$
Storage temperature	T_J, T_{STG}	-65~+125			$^\circ\text{C}$



Schottky Barrier Diode

SM5817W-SM5819W

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test Condition	MIN	MAX	UNIT	
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1mA$				
		SM5817W	20		V	
		SM5818W	30			
		SM5819W	40			
Reverse voltage leakage current	I_R	$V_R=20V$		1	mA	
		SM5817W				
		SM5818W				
		$V_R=30V$				
		SM5818W				
		$V_R=40V$				
		SM5819W				
Forward voltage	V_F	SM5817W	$I_F=1A$		V	
			$I_F=3A$			0.45
		SM5818W	$I_F=1A$			0.75
			$I_F=3A$			0.55
		SM5819W	$I_F=1A$			0.875
			$I_F=3A$			0.6
					0.9	
Diode capacitance	C_D	$V_R=4V, f=1MHz$		120	pF	

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

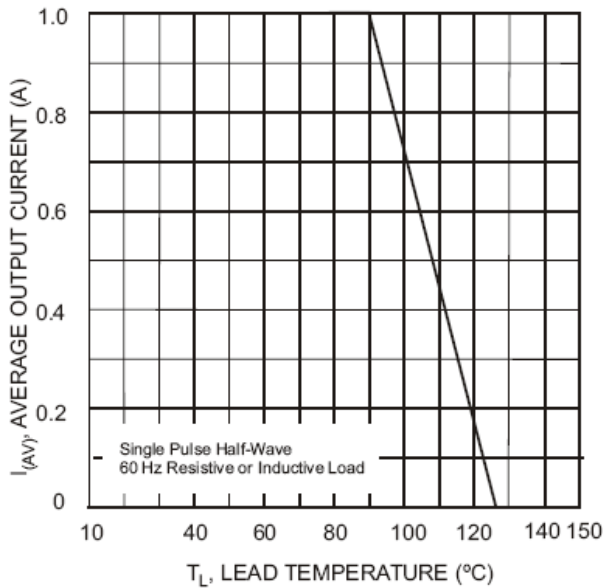


Fig. 1 Forward Current Derating Curve

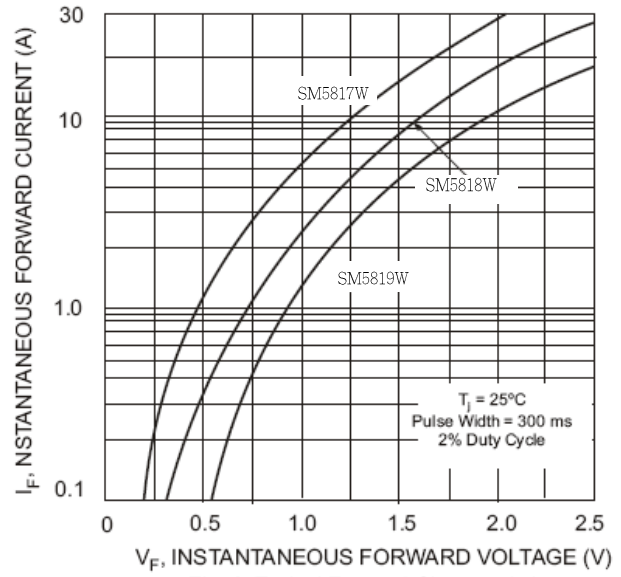


Fig. 2 Typical Forward Characteristics



Schottky Barrier Diode

SM5817W-SM5819W

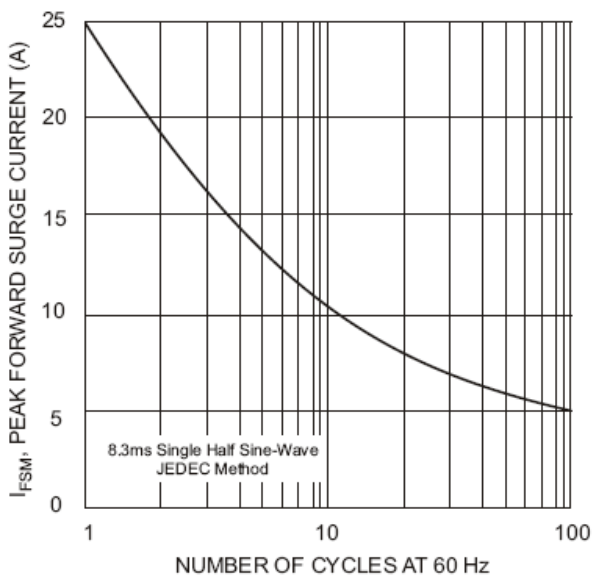


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

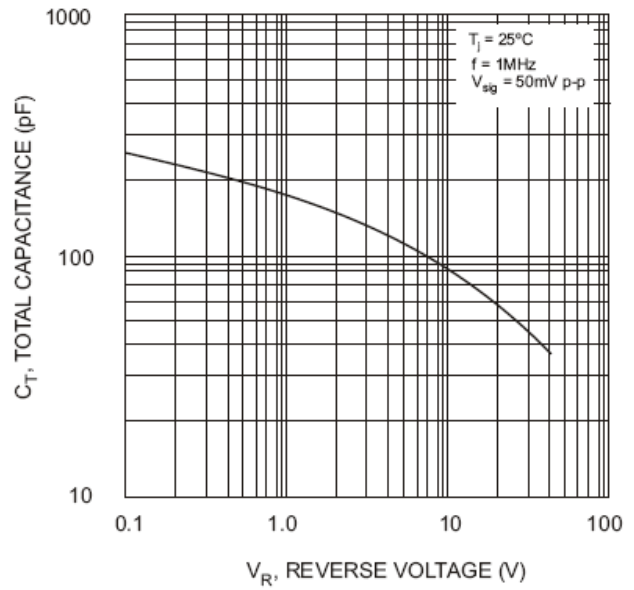


Fig. 4 Typical Total Capacitance

PACKAGE OUTLINE

Plastic surface mounted package

SOD-123

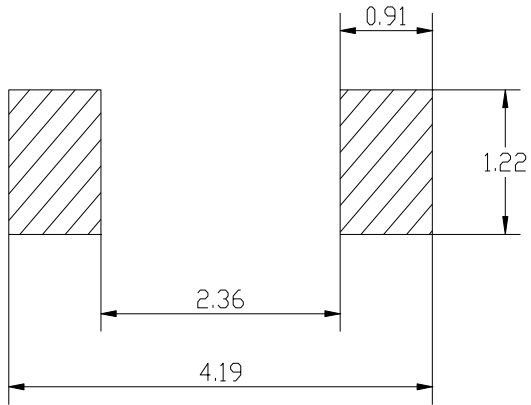
SOD-123		
Dim	Min	Max
A	1.4	1.8
B	2.55	2.85
C	1.15 Typical	
D	0.55 Typical	
E	0.3	0.4
H	0.02	0.10
J	0.1 Typical	
K	3.55	3.85
All Dimensions in mm		



Schottky Barrier Diode

SM5817W-SM5819W

SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
605817W-605819W	SOD-123	3000/Tape&Reel