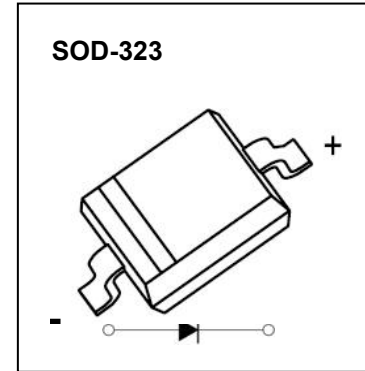


CSD5817S323-CSD5819S323

SCHOTTKY BARRIER DIODE

FEATURES

For use in low voltage, high frequency inverters
Free wheeling, and polarity protection applications



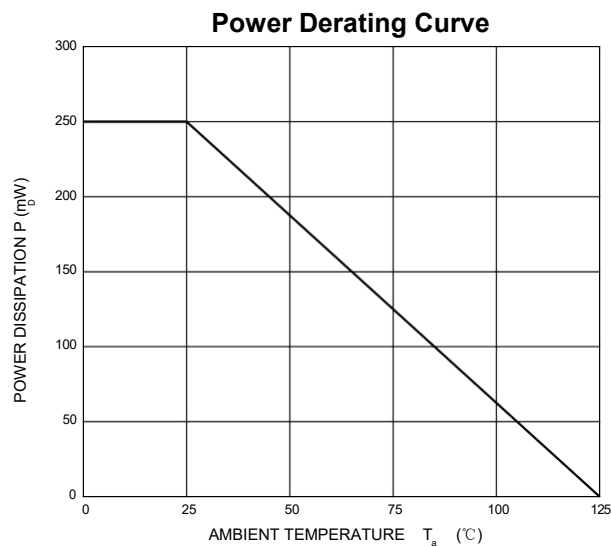
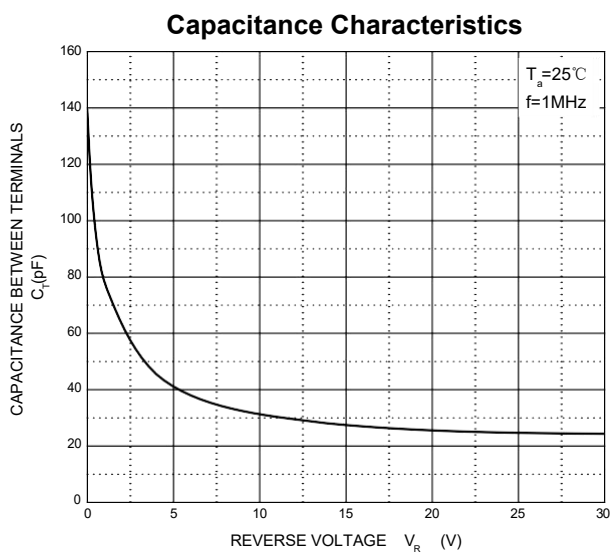
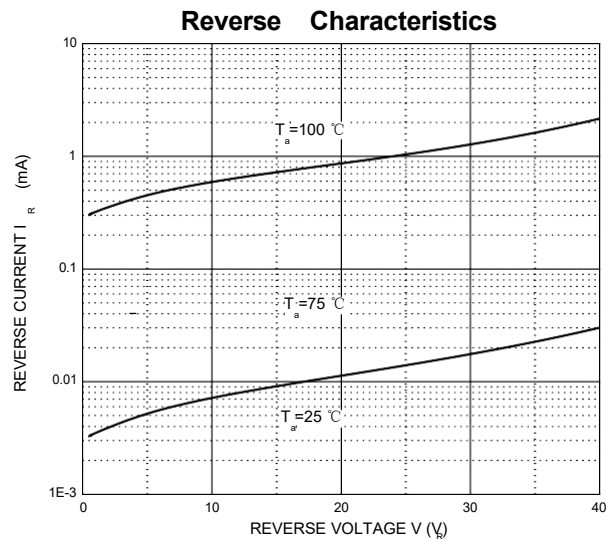
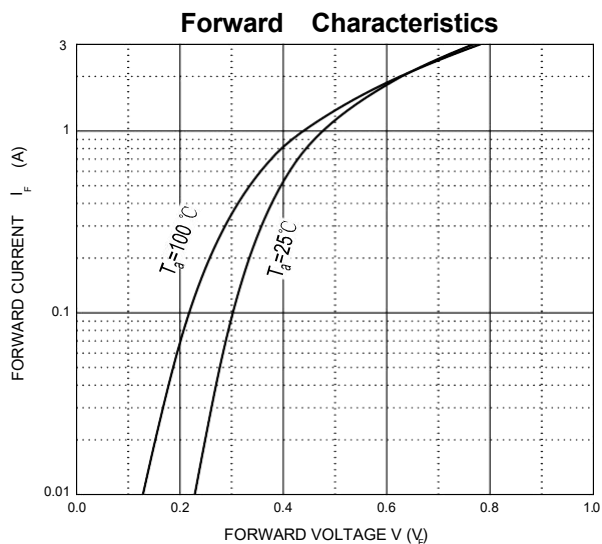
Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

Parameter	Symbol	CSD5817	CSD5818	CSD5819	Unit
Non-repetitive peak reverse voltage	V_{RM}	20	30	40	V
Peak repetitive peak reverse voltage	V_{RRM}				
Working peak reverse voltage	V_{RWM}	20	30	40	V
DC blocking voltage	V_R				
RMS reverse voltage	$V_{R(RMS)}$	14	21	28	V
Average rectified output current	I_o		1		A
Non-repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}		9		A
Repetitive peak forward current	I_{FRM}		1.5		A
Power dissipation	P_d		250		mW
Thermal resistance junction to ambient	$R_{\theta JA}$		400		°C/W
Operation Junction temperature Range	T_J		-40~+125		°C
Storage temperature Range	T_{STG}		-55~+150		°C

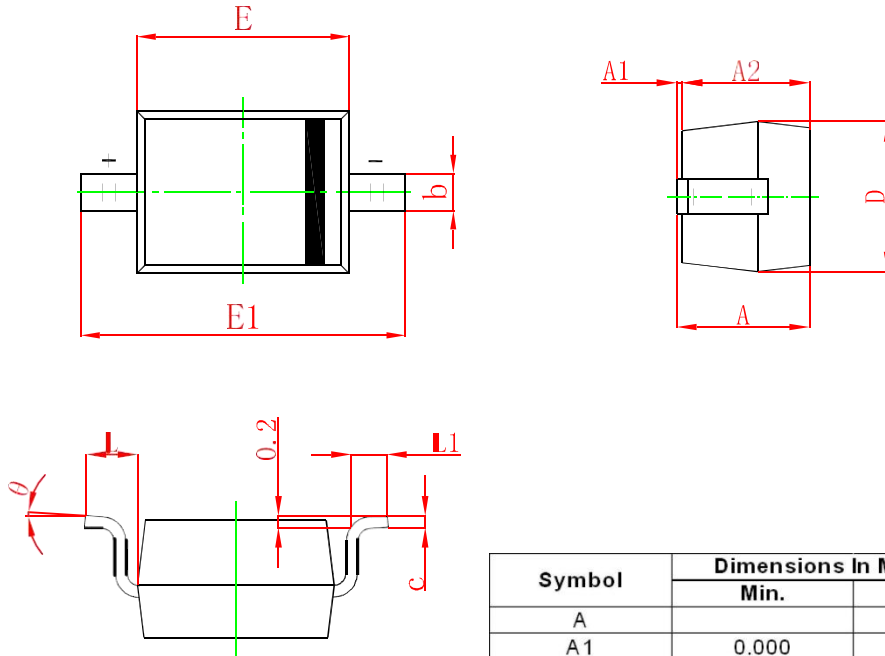
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1mA$ CSD5817 CSD5818 CSD5819	20 30 40		V
Reverse voltage leakage current	I_R	$V_R=20V$ CSD5817 $V_R=30V$ CSD5818 $V_R=40V$ CSD5819		1	mA
Forward voltage	V_F	CSD5817 $I_F=1A$		0.45	V
		$I_F=3A$		0.75	
		CSD5818 $I_F=1A$		0.55	V
		$I_F=3A$		0.875	
Diode capacitance	C_D	CSD5819 $I_F=1A$		0.6	V
		$I_F=3A$		0.9	
Diode capacitance	C_D	$V_R=4V, f=1MHz$		120	pF

Typical Characteristics

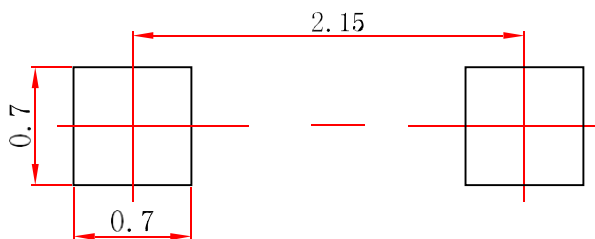


SOD-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

SOD-323 Suggested Pad Layout



Note:
 1. Controlling dimension: in millimeters.
 2. General tolerance: ± 0.05 mm.
 3. The pad layout is for reference purposes only.

Notice

Specifications of the products displayed herein are subject to change without notice. CCS or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in CCS terms and conditions of sale for such products, CCS assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of CCS products including liability or warranties relating to fitness for a particular purpose, merchant ability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications.

Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify CCS for any damages resulting from such improper use or sale.