



CASD501SG

Surface Mount Small Signal Schottky Barrier Diodes

Features

- For surface mounted application
- Extremely low V_F
- Extremely Thin Package
- Low Stored Charge
- Majority Carrier Conduction

Mechanical Data

- Case: Molded Plastic, JEDEC SOD-323.
- Terminals: Solder plated, solderable per MIL-STD-750 Method 2026
- Polarity: Indicated by cathode band.
- Mounting Position : Any.
- Weight: 0.0045 gram, 0.000159 ounce

Maximum Ratings (Ta=25°C , unless otherwise noted)

Parameter	Symbol	Conditions	min	typ	max	unit
Repetitive Peak Reverse Voltage	V_{RM}				45	V
Continuous Reverse Voltage	V_R				40	V
Average Rectified Current	I_O				100	mA
Peak Forward Surge Current	I_{FSM}	8.3ms single half sine-wave superimposed on rated load (JEDEC method)		1000		mA
Typical Junction Capacitance	C_D	f = 1MHz and applied 10VDC Reverse Voltage		20		pF
Operating Temperature Range	T_J		-40		+125	°C
Storage Temperature Range	T_{STG}		-40		+125	°C

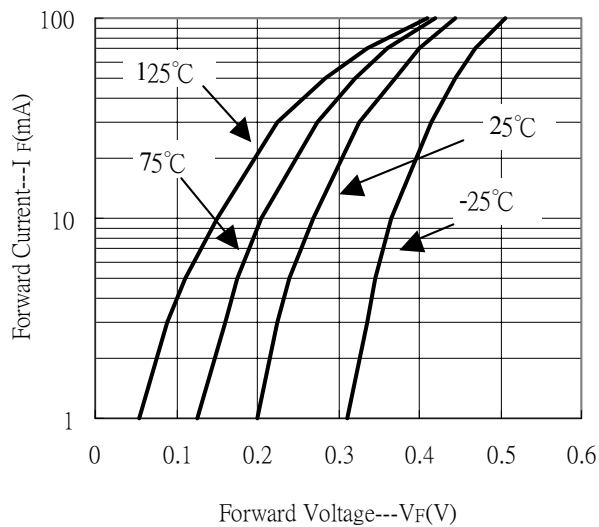
Electrical Characteristics (Ta=25°C , unless otherwise noted)

Parameter	Symbol	Conditions	min	typ	max	unit
Forward Voltage	V_F	$I_F = 100\text{mA DC}$			0.55	V
Reverse Leakage Current	I_R	$V_R = 10\text{V DC}$			30	μA

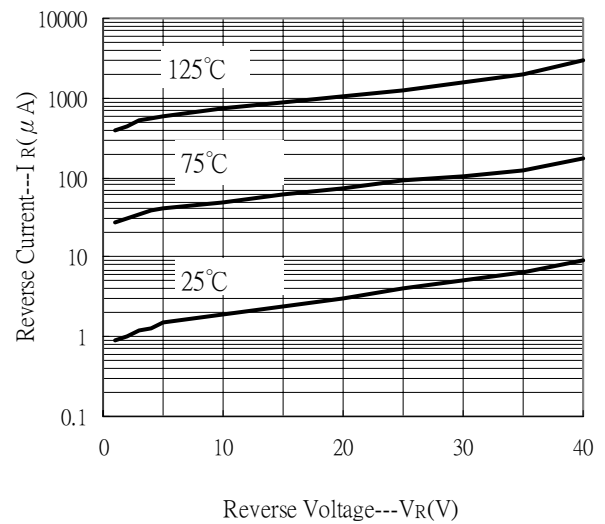


Characteristic Curves

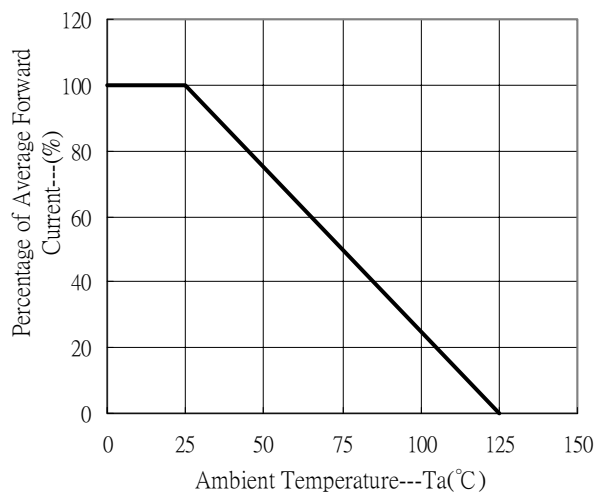
Forward Characteristics



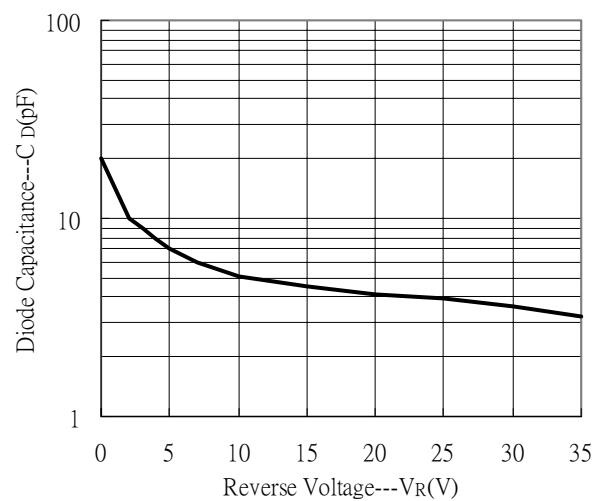
Reverse Characteristics



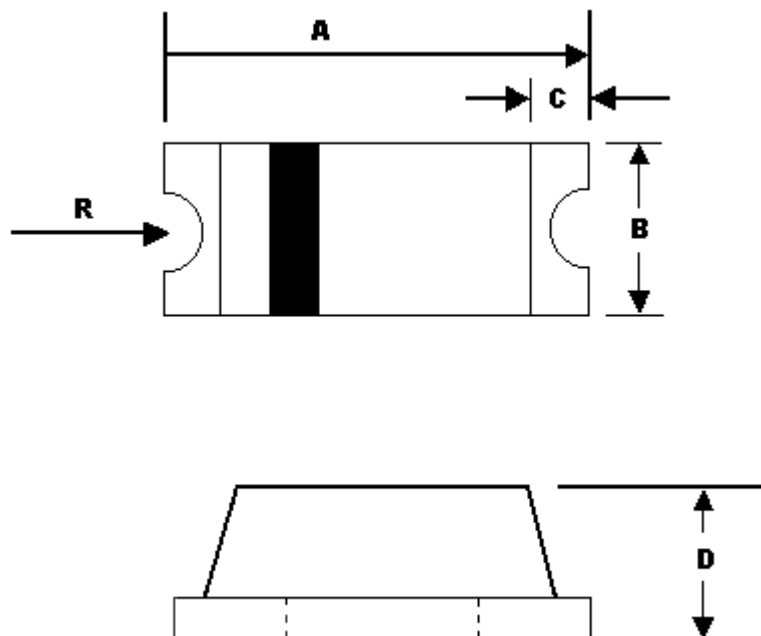
Forward Current Derating Curve
(Mounting on glass epoxy PCBs)



Diode Capacitance vs Reverse Voltage



SOD-323 Dimension



SOD-323 Plastic Surface
 Mounted Package
 CYStek Package Code:SG

*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.090	0.106	2.3	2.7	D	0.028	0.035	0.7	0.9
B	0.045	0.053	1.15	1.35	R	0.02(typ)		0.5(typ)	
C	0.012(typ)		0.3(typ)						

Notes : 1.Controlling dimension : millimeters.

2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.

3.If there is any question with packing specification or packing method, please contact your local CYStek sales office.

Material :

- Lead : 42 Alloy ; solder plating
- Mold Compound : Epoxy resin family, flammability solid burning class:UL94V-0

Important Notice:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of CYStek.
- CYStek reserves the right to make changes to its products without notice.
- CYStek **semiconductor products are not warranted to be suitable for use in Life-Support Applications, or systems.**
- CYStek assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.