

# Surface Mount Schottky Diode

## ●Applications

Low current rectification

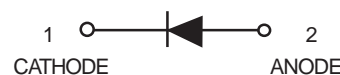
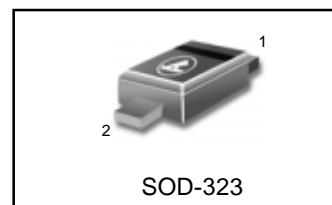
## ●Features

- 1) Small surface mounting type.
- 2) Low  $I_R$ . ( $I_R=70nA$  Typ.)
- 3) High reliability.
- 4) Pb-Free package is available.

## ●Construction

Silicon epitaxial planar

**LRB500V-40T1**




## ●Device Marking and Ordering Information

Device	Marking	Shipping
LRB500V-40T1	5	3000/Tape&Reel
LRB500V-40T1G	5 (Pb-Free)	3000/Tape&Reel

## ●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Peak reverse voltage	$V_{RM}$	45	V
DC reverse voltage	$V_R$	40	V
Mean rectifying current	$I_o$	0.1	A
Peak forward surge current*	$I_{FSM}$	1	A
Junction temperature	$T_J$	125	°C
Storage temperature	$T_{stg}$	-40~+125	°C

\* 60Hz for 1 

## ●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	--	-	0.45	V	$I_F=10mA$
Reverse current	$I_R$	--	-	1	$\mu A$	$V_R=10V$
Capacitance between terminals	$C_T$	--	6.0	-	pF	$V_R=10V, f=1MHz$

Note) ESD sensitive product handling required.

● Electrical characteristic curves (Ta = 25°C)

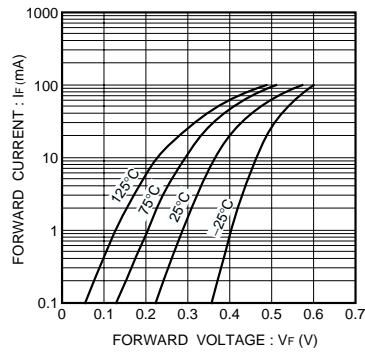


Fig. 1 Forward characteristics

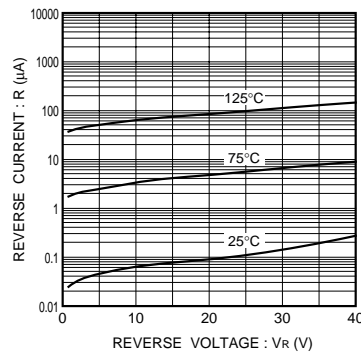


Fig. 2 Reverse characteristics

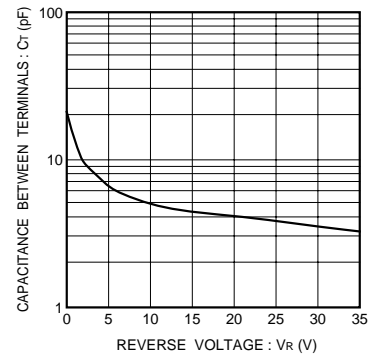


Fig. 3 Capacitance between terminals characteristics

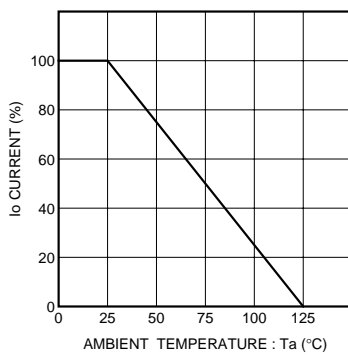
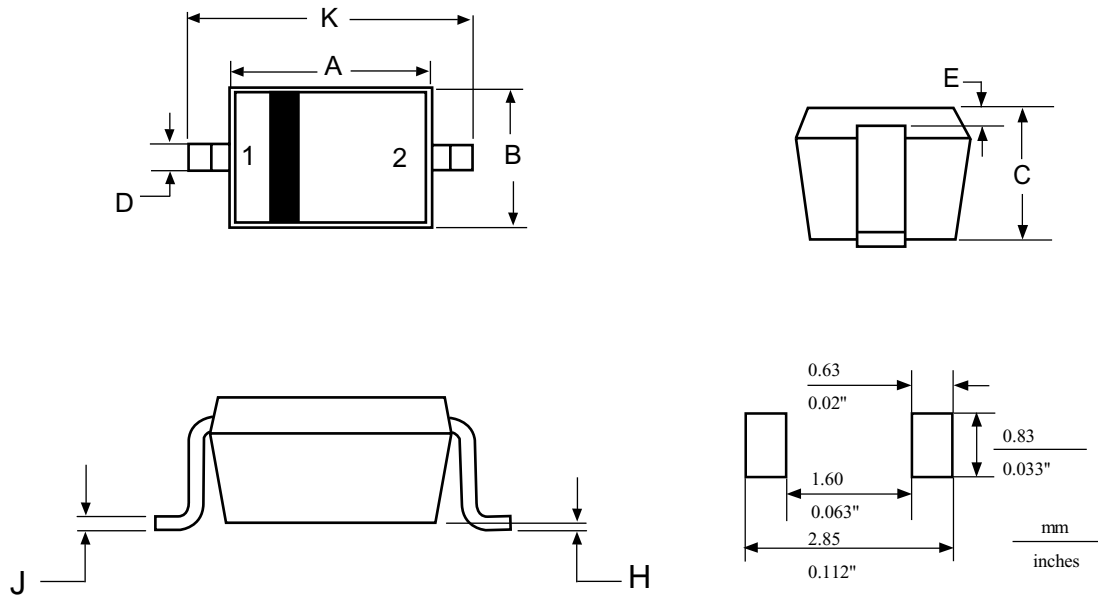


Fig. 4 Derating curve (mounting on glass epoxy PCBs)

**SOD-323**



**NOTES:**

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.60	1.80	0.063	0.071
B	1.15	1.35	0.045	0.053
C	0.80	1.00	0.031	0.039
D	0.25	0.40	0.010	0.016
E	0.15 REF		0.006 REF	
H	0.00	0.10	0.000	0.004
J	0.089	0.177	0.0035	0.0070
K	2.30	2.70	0.091	0.106

PIN: 1. CATHODE  
2. ANODE