

# Surface Mount Schottky Diode

## ● Applications

Low current rectification

## ● Features

- 1) Small surface mounting type.
- 2) High reliability.
- 3) Pb-Free package is available.

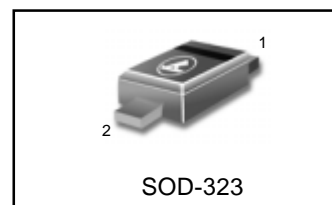
## ● Construction

Silicon epitaxial planar

## ● Device marking and ordering information


Device	Marking	Shipping
LRB501V-40T1	4	3000/Tape&Reel
LRB501V-40T1G (Pb-Free)	4	3000/Tape&Reel

**LRB501V-40T1**



## ● 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

\* 60 Hz for 1 

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_{F1}$	-	-	0.55	V	$I_F=100mA$
Forward voltage	$V_{F2}$	-	-	0.34	V	$I_F=10mA$
Reverse current	$I_R$	-	-	30	$\mu A$	$V_R=10V$
Capacitance between terminals	$C_T$	-	6.0	-	pF	$V_R=10V, f=1MHz$

Note) ESD sensitive product handling required.

● Electrical characteristic curves ( $T_a = 25^\circ\text{C}$ )

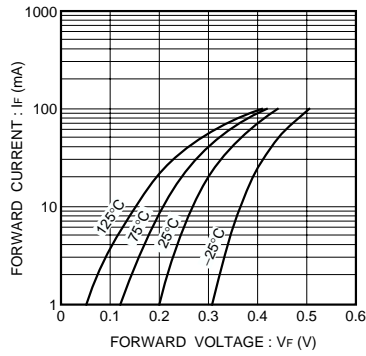


Fig. 1 Forward characteristics

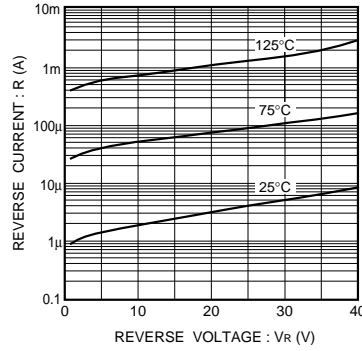


Fig. 2 Reverse characteristics

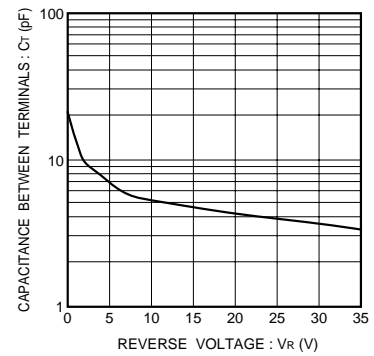


Fig. 3 Capacitance between terminals characteristics

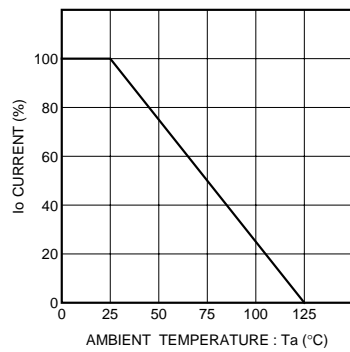
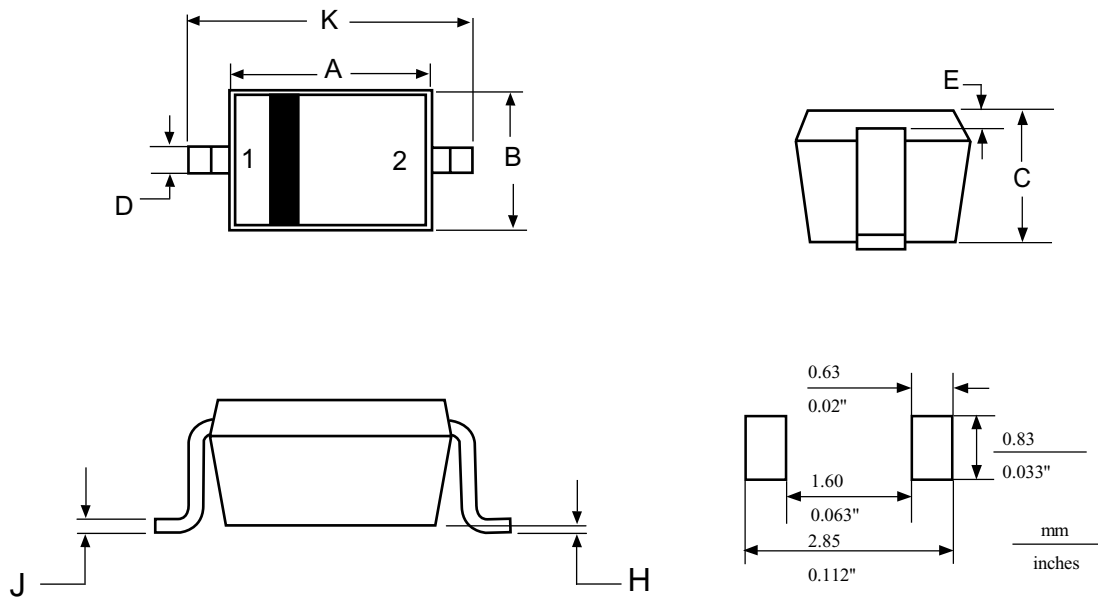


Fig. 4 Derating curve

**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