



Surface Mount Schottky Diode

● **Applications**

Low current rectification

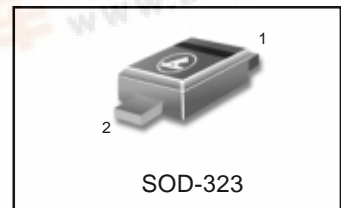
● **Features**

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

● **Construction**

Silicon epitaxial planar

LRB501V-40T1



● **Device marking and ordering information**

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

* 60 Hz for 1ms

● **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	μA	V _R =10V
Capacitance between terminals	C _T	-	6.0	-	pF	V _R =10V, f=1MHz

Note) ESD sensitive product handling required.

LRB501V-40T1

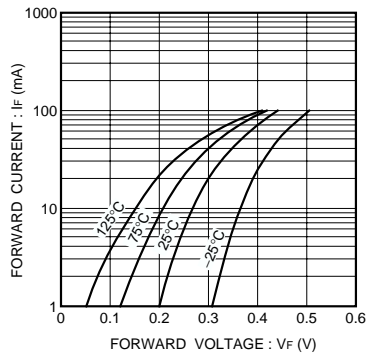
● Electrical characteristic curves ($T_a = 25^\circ\text{C}$)


Fig. 1 Forward characteristics

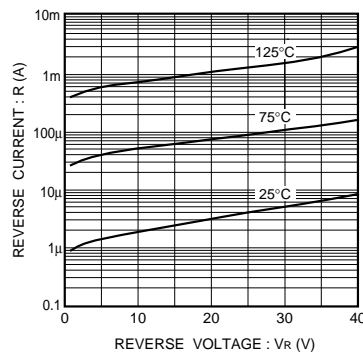


Fig. 2 Reverse characteristics

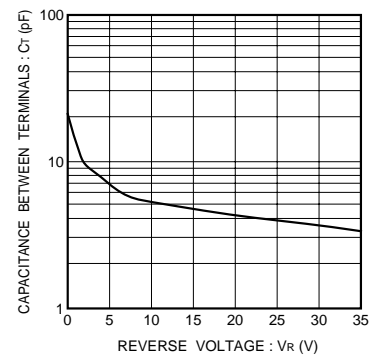


Fig. 3 Capacitance between terminals characteristics

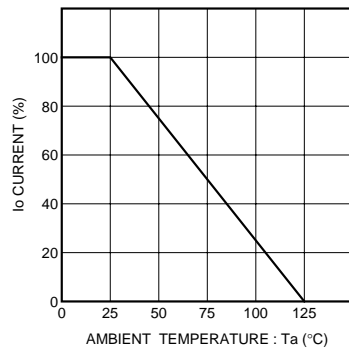
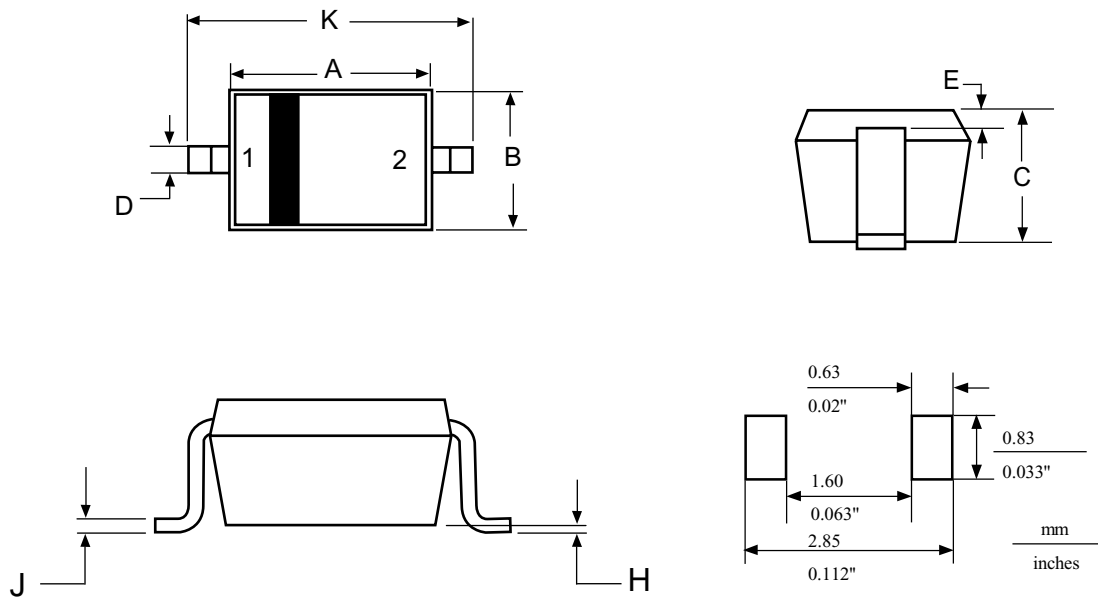


Fig. 4 Derating curve

LRB501V-40T1

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