

# 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.

We declare that the material of product compliance with RoHS requirements.

S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

## ●Construction


Silicon epitaxial planar

## ●Device Marking and Ordering Information

Device	Marking	Shipping
LRB500V-40T1G S-LRB500V-40T1G	5	3000/Tape&Reel
LRB500V-40T3G S-LRB500V-40T3G	5	10000/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.

**LRB500V-40T1G**  
**S-LRB500V-40T1G**



LRB500V-40T1G , S-LRB500V-40T1G

● Electrical characteristic curves (Ta = 25°C)

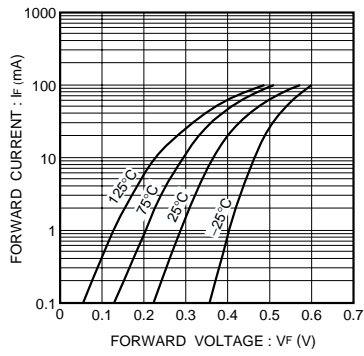


Fig. 1 Forward characteristics

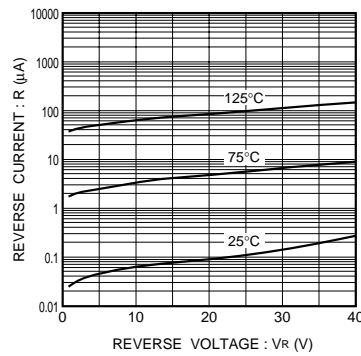


Fig. 2 Reverse characteristics

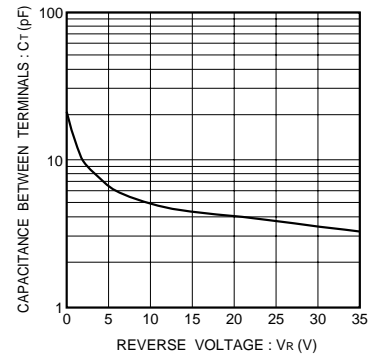


Fig. 3 Capacitance between terminals characteristics

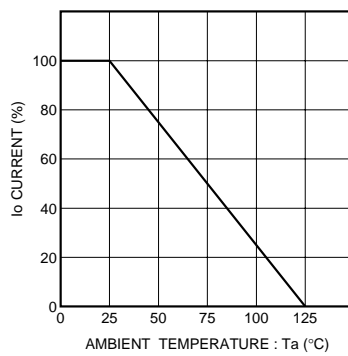
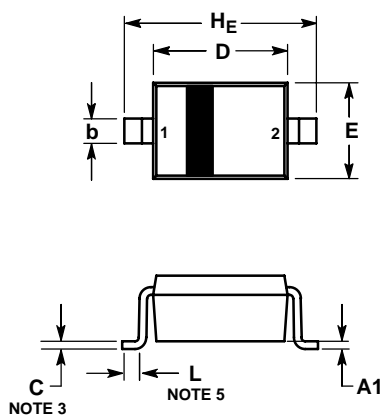


Fig. 4 Derating curve (mounting on glass epoxy PCBs)

LRB500V-40T1G , S-LRB500V-40T1G

SOD-323



- NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
  2. CONTROLLING DIMENSION: MILLIMETERS.
  3. LEAD THICKNESS SPECIFIED PER L/F DRAWING WITH SOLDER PLATING.
  4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
  5. DIMENSION L IS MEASURED FROM END OF RADIUS.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.90	1.00	0.031	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A3	0.15 REF			0.006 REF		
b	0.25	0.32	0.4	0.010	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.60	1.70	1.80	0.062	0.066	0.070
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08		0.003			
$H_E$	2.30	2.50	2.70	0.090	0.098	0.105

SOLDERING FOOTPRINT\*

