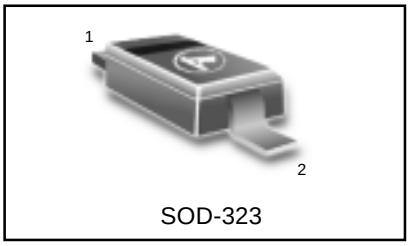
Surface Mount Schottky Diode

LRB500V-40T1G
S-LRB500V-40T1G



SOD-323

●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	Tj	125	°C
Storage temperature	Tstg	–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	μA	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

●**Electrical characteristic curves** (Ta = 25°C)

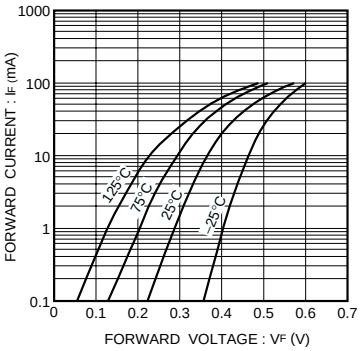


Fig. 1 Forward characteristics

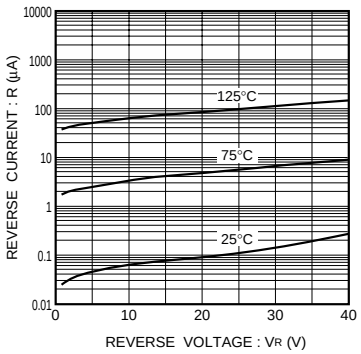


Fig. 2 Reverse characteristics

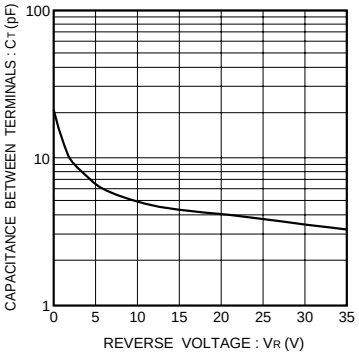


Fig. 3 Capacitance between terminals characteristics

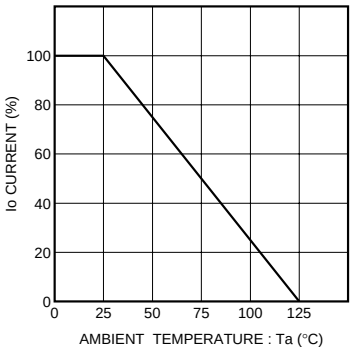
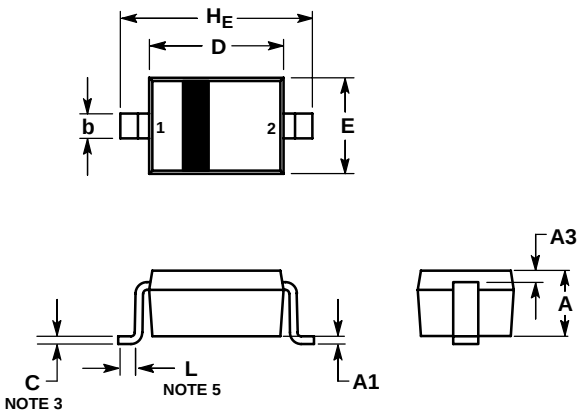


Fig. 4 Derating curve
(mounting on glass epoxy PCBs)

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.

	MILLIMETERS			INCHES		
DIM	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*