

Schottky barrier diode

LRB551V-30T1G

●Applications

High-frequency rectification
Switching regulators

●Features

- 1) Small surface mounting type.
- 2) Ultra low V_F ($V_F=0.45V$ Typ. at 0.5A)
- 3) High reliability.
- 4) We declare that the material of product compliance with RoHS requirements.
- 5) 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
LRB551V-30T1G S-LRB551V-30T1G	D	3000/Tape&Reel
LRB551V-30T3G S-LRB551V-30T3G	D	10000/Tape&Reel

●Absolute maximum ratings ($T_a = 25^\circ C$)

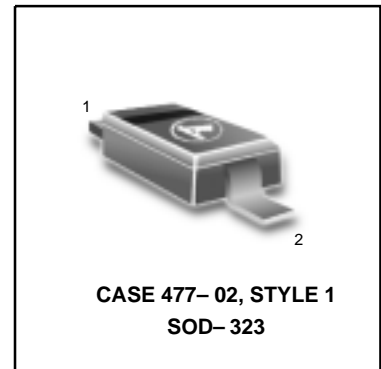
Parameter	Symbol	Limits	Unit
Peak reverse voltage	V_{RM}	30	V
DC reverse voltage	V_R	20	V
Mean rectifying current	I_o	0.5	A
Peak forward surge current*	I_{FSM}	2	A
Junction temperature	T_j	+125	$^\circ C$
Storage temperature	T_{stg}	-40~+125	$^\circ C$

* 60Hz for 1 μs

●Electrical characteristics ($T_a = 25^\circ C$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_{F1}	-	-	0.36	V	$I_F = 100mA$
	V_{F2}	-	-	0.54	V	$I_F = 500mA$
Reverse current	I_R	-	-	100	μA	$V_R = 20V$

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

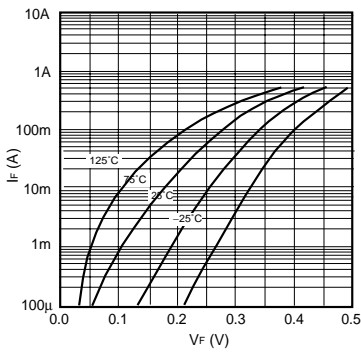


Fig.1 Forward characteristics

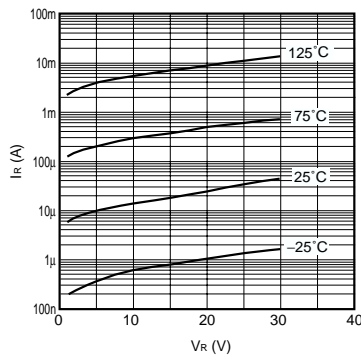


Fig.2 Reverse characteristics

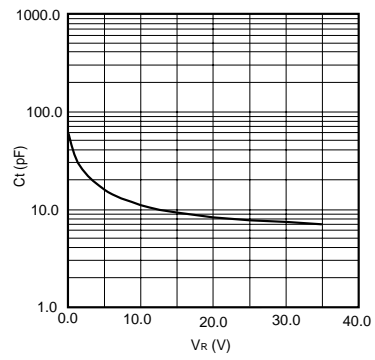


Fig.3 Capacitance between terminals characteristics

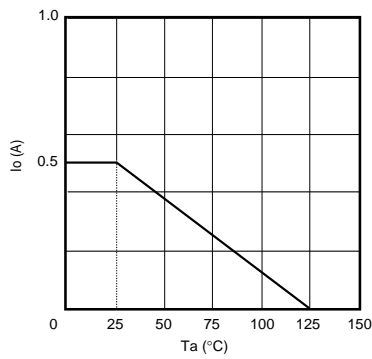
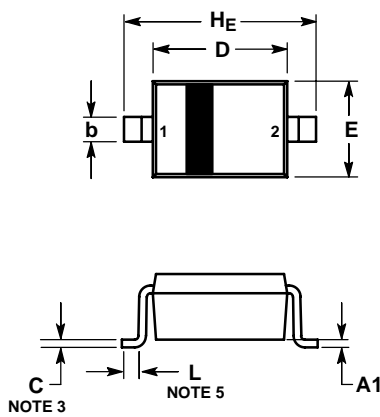


Fig.4 Derating curve

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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		
HE	2.30	2.50	2.70	0.090	0.098	0.105

SOLDERING FOOTPRINT*
