

# Schottky barrier diode

## LRB551V-30T1

### ●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.
- 3) Pb-Free package is available.

### ●Construction

Silicon epitaxial planar

### ●Device Marking and Ordering Information

Device	Marking	Shipping
LRB551V-30T1	D	3000/Tape&Reel
LRB551V-30T1G	D (Pb-Free)	3000/Tape&Reel

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

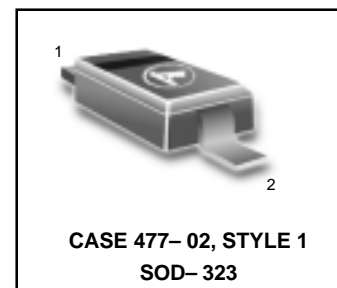
Parameter	Symbol	Limits	Unit
Peak reverse voltage	$V_{RM}$	30	V
DC reverse voltage	$V_R$	20	V
Mean rectifying current	$I_o$	0.5	A
Peak forward surge current*	$I_{FSM}$	2	A
Junction temperature	$T_j$	125	$^\circ C$
Storage temperature	$T_{stg}$	-40~+125	$^\circ C$

\* 60Hz for 1  $\mu s$

### ●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	$\mu A$	$V_R = 20V$

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● Electrical characteristic curves (Ta = 25°C)

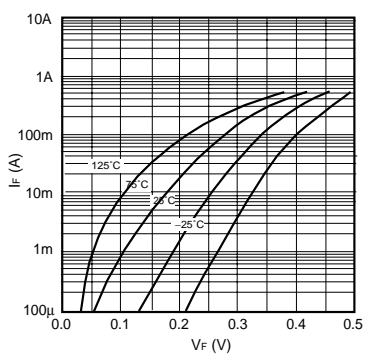


Fig.1 Forward characteristics

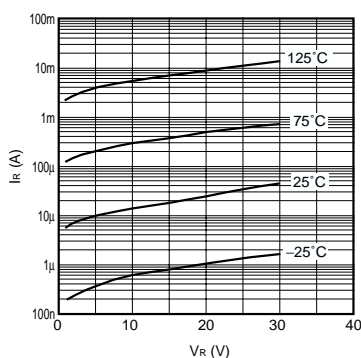


Fig.2 Reverse characteristics

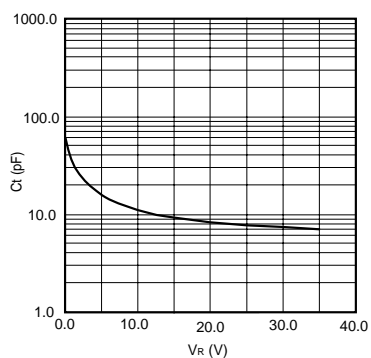


Fig.3 Capacitance between terminals characteristics

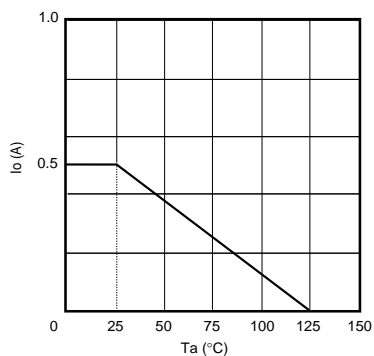
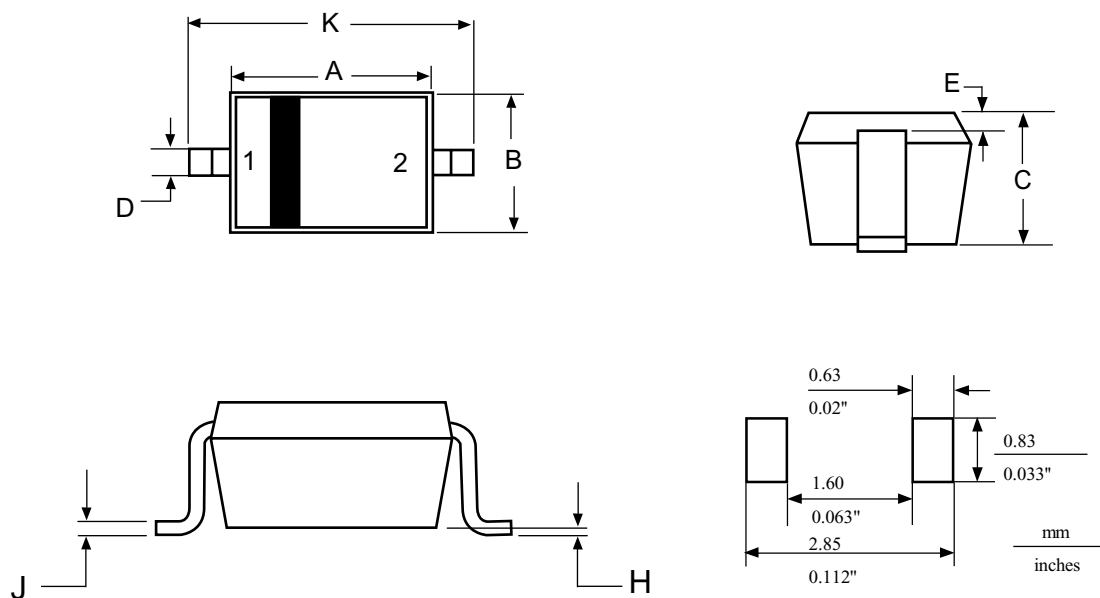


Fig.4 Derating curve

LRB551V-30T1

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