

●Applications

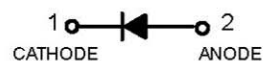
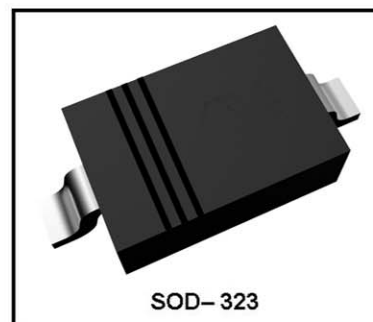
High-frequency rectification
Switching regulators

●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
RB551V-30	D (Pb-Free)	3000/Tape&Reel

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

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	$^\circ\text{C}$
Storage temperature	T_{stg}	-40~+125	$^\circ\text{C}$

* 60Hz for 1 μs

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

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

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

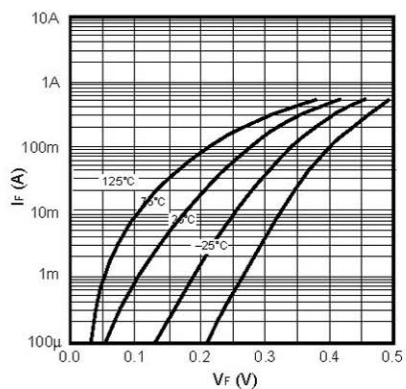


Fig.1 Forward characteristics

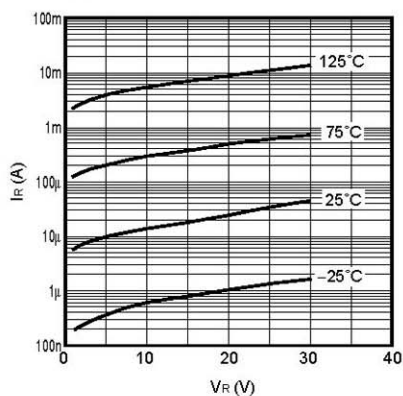


Fig.2 Reverse characteristics

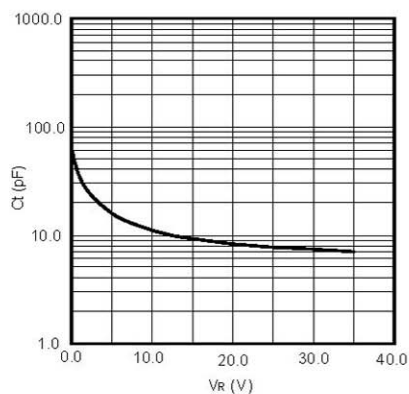


Fig.3 Capacitance between terminals characteristics

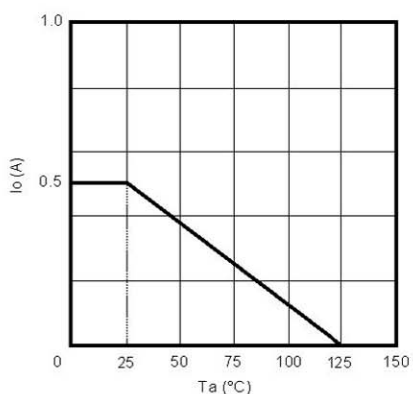
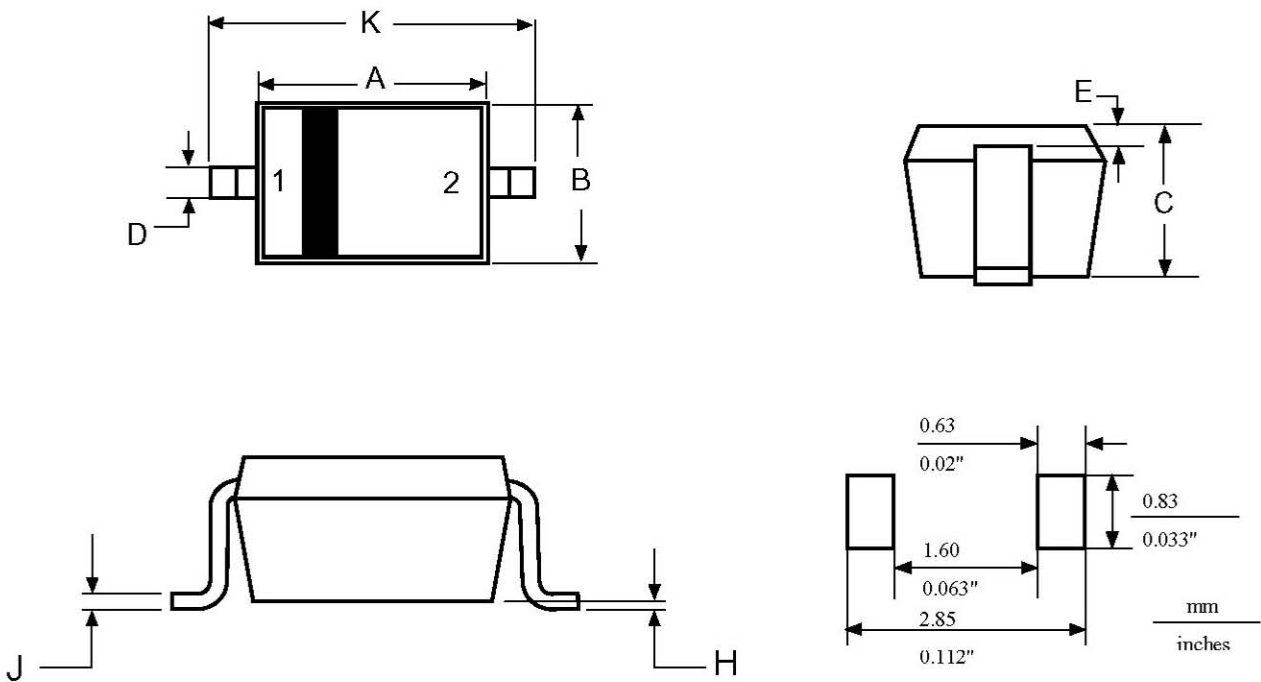


Fig.4 Derating curve



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