

### ■ Features

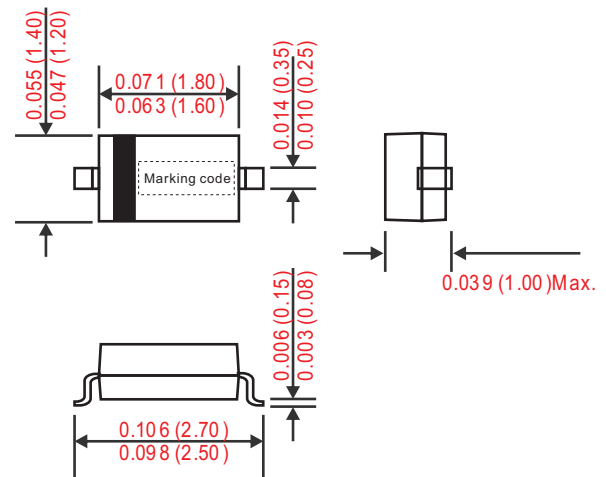
- Low forward voltage and low reverse current.
- Extremely high switching speed.
- High reliability.
- Low forward voltage drop .
- Schottky barrier diodes encapsulated in a SOD-323 package.
- Suffix "G" indicates Halogen-free part, ex. RB501VG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

### ■ Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-323
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : 0.0002 ounce, 0.005 gram

### ■ Outline

SOD-323



Dimensions in inches and (millimeters)

### ■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	RB501V	UNIT
Marking code		JV	
Breakdown voltage	BV	45	V
DC reverse voltage	$V_R$	40	V
Average rectifier forward current	$I_O$	100	mA
Peak forward surge current	$I_{FSM}$	1000	
Operation junction temperature range	$T_J$	125	°C
Storage temperature range	$T_{STG}$	-40 ~ +125	

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 100\text{mA}$	$V_F$			550	mV
Reverse leakage	$V_R = 10\text{V}$	$I_R$			30	uA
Typical junction capacitance	$V_R = 10\text{V}, f = 1\text{MHz}$	$C_J$			20	pF

■ Rating and characteristic curves

Fig. 1 Forward characteristics

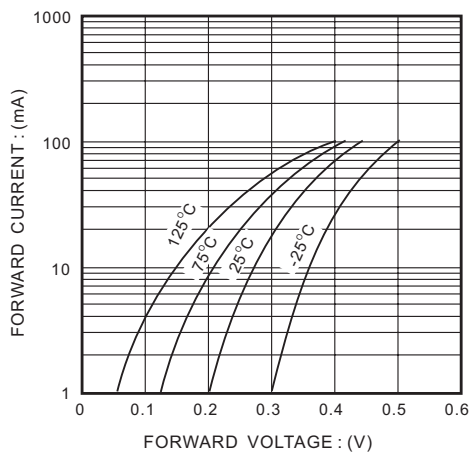


Fig. 2 Reverse characteristics

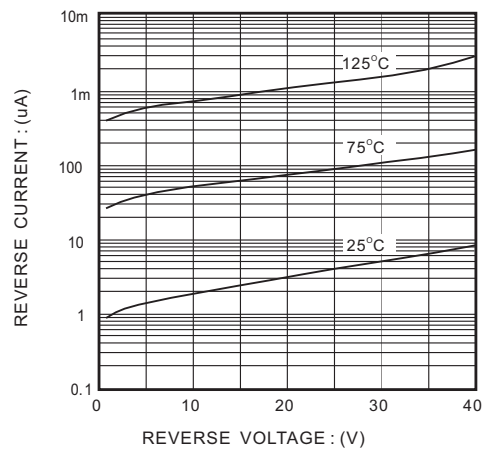


FIG.3-TYPICAL TERMINALS CAPACITANCE

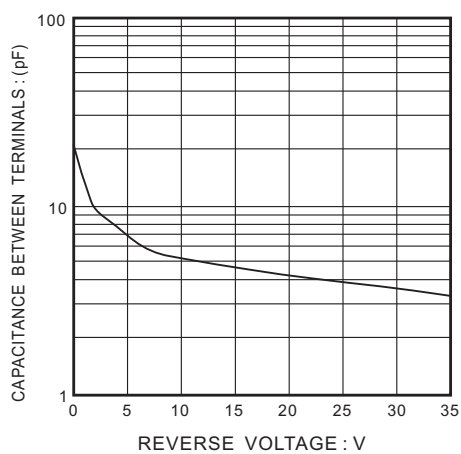
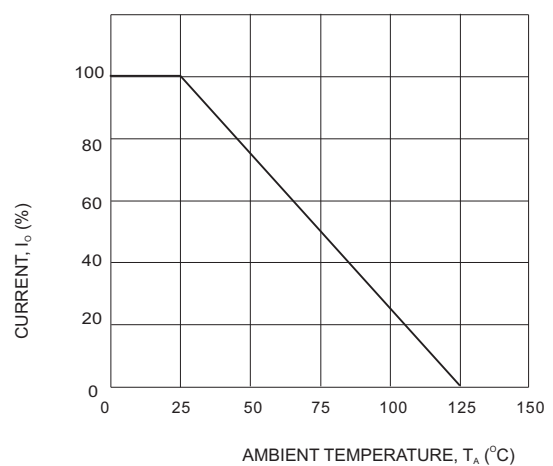
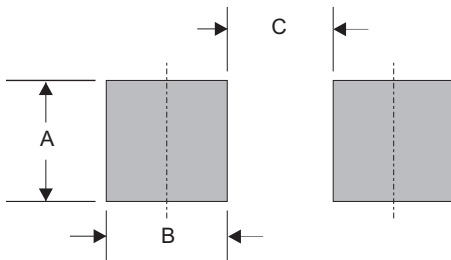


FIG.4-DERATING CURVE



■ SOD-323 foot print



A	B	C
0.059 (1.50)	0.039 (1.00)	0.051 (1.30)

Dimensions in inches and (millimeters)

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