RB500V

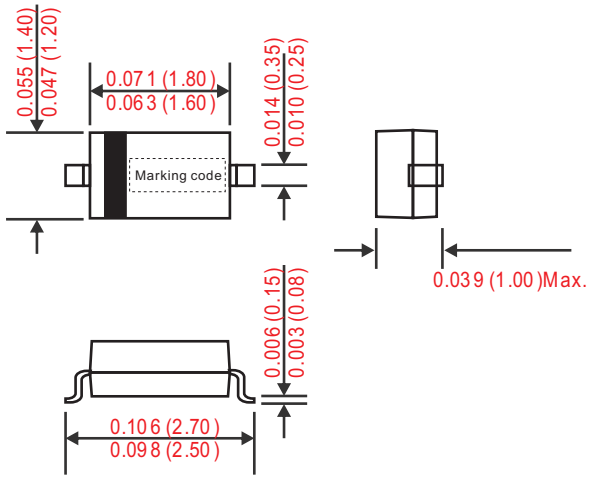
100mA Surface Mount Small Signal Diodes

■ 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.RB500VG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Outline

SOD-323



Dimensions in inches and (millimeters)

■ 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

■ 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	RB500V	UNIT
Marking code		JV	
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
Reverse breakdown voltage	I_R = 100uA	$V_{(BR)R}$	40			V
Forward voltage	I_F = 10mA	V_F			450	mV
Reverse leakage	V_R = 10V	I_R			1.0	uA
Typical junction capacitance	V_R = 10V, f = 1MHz	C_J			20	pF

Document ID : DS-22K2L
Issued Date : 2010/05/05
Revised Date : 2012/05/31
Revision : C

■ Rating and characteristic curves

Fig. 1 Forward characteristics

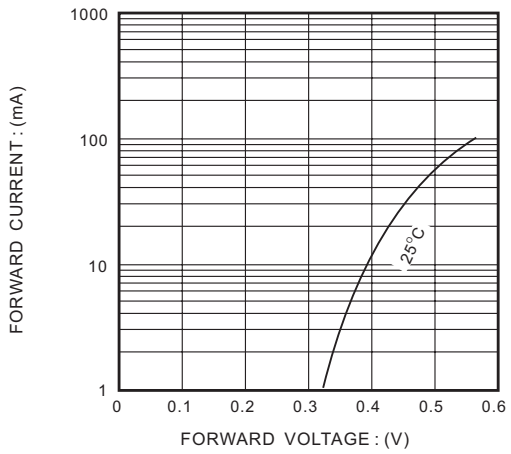


Fig. 2 Reverse characteristics

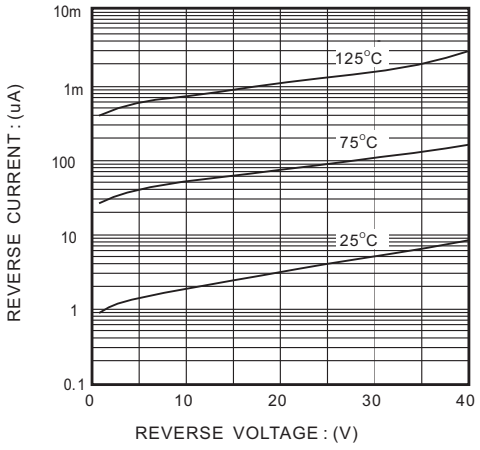


FIG.3-TYPICAL TERMINALS CAPACITANCE

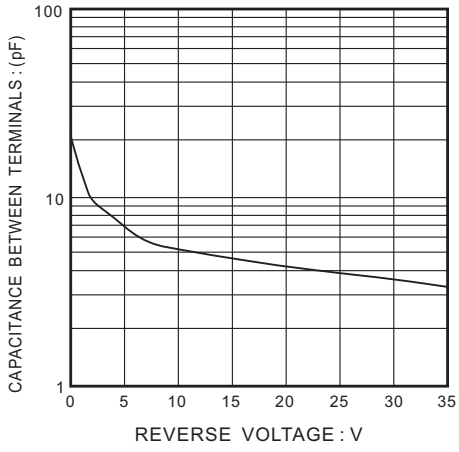
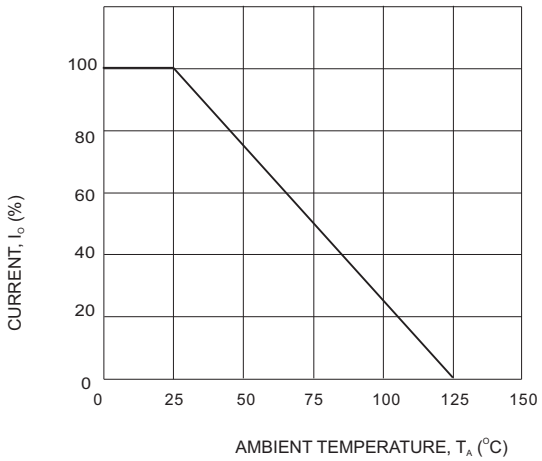


FIG.4-DERATING CURVE



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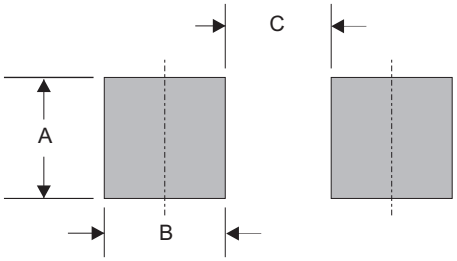
■ SOD-323 foot print



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

Dimensions in inches and (millimeters)

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