

### ■ Features

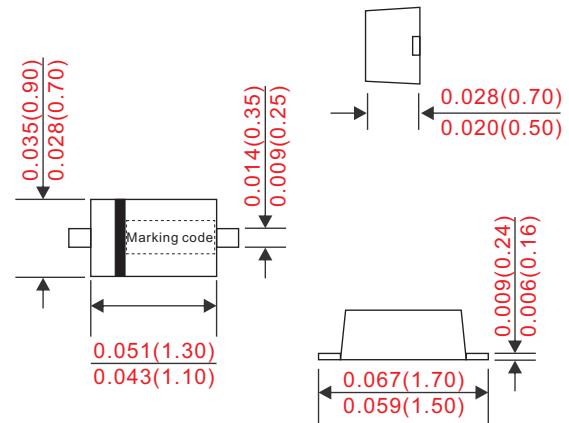
- Low current rectification and high speed switching.
- Extremely small surface mount type.
- Silicon epitaxial planar chip, metal silicon junction.
- Suffix "G" indicates Halogen-free part, ex. RB751SG-40.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

### ■ Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-523
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : Approximated 0.002 gram

### ■ Outline

SOD-523



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	RB751S-40	UNIT
Marking code		5	
Maximum Recurrent Peak Reverse Voltage	$V_{RM}$	40	V
Continuous reverse voltage	$V_R$	40	
Maximum Instantaneous Forward Voltage@1mA DC	$V_F$	0.37	V
Power Dissipation	$P_D$	150	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	520	°C/W
Operating Temperature	$T_J$	-40 ~ +125	°C
Storage temperature	$T_{STG}$	-40 ~ +125	°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Mean rectifying current		$I_o$			30	mA
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$			200	mA
Reverse current	$V_R = 30V$ DC	$I_R$			0.5	uA
Capacitance between terminals	$V_R = 1V$ DC, $f = 1MHz$	$C_T$		2		pF

■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

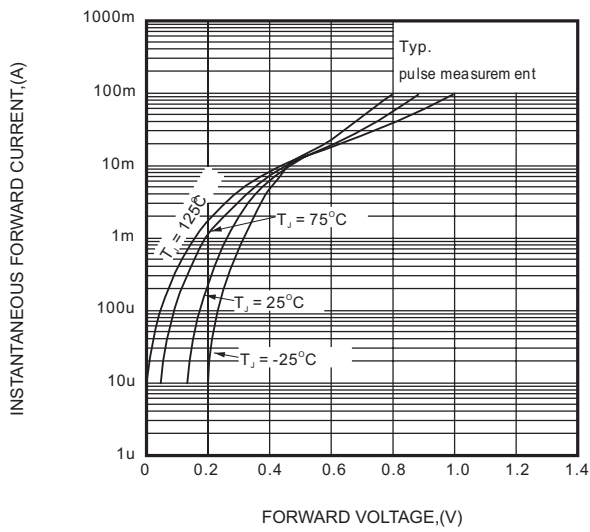


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

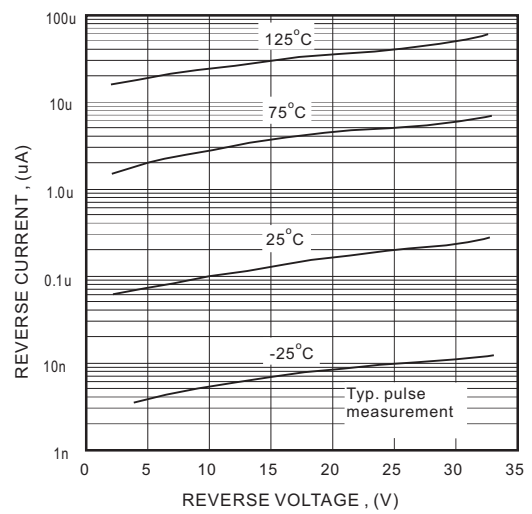
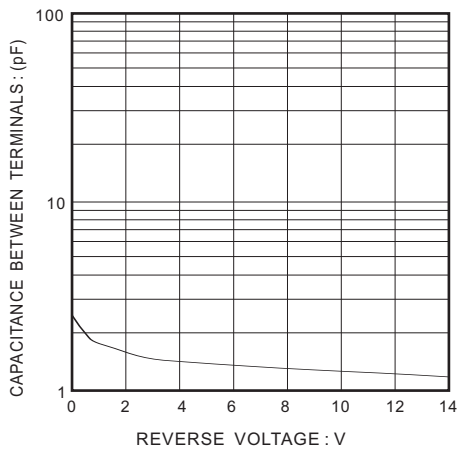
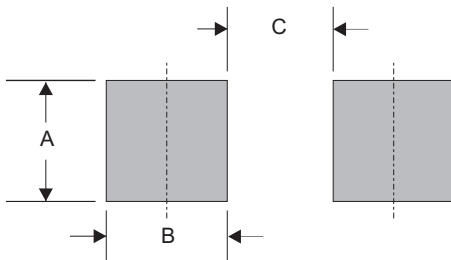


FIG.3-TYPICAL TERMINALS CAPACITANCE



■ SOD-523 foot print



A	B	C
0.032 (0.80)	0.024 (0.60)	0.043 (1.10)

Dimensions in inches and (millimeters)

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