

■ Features

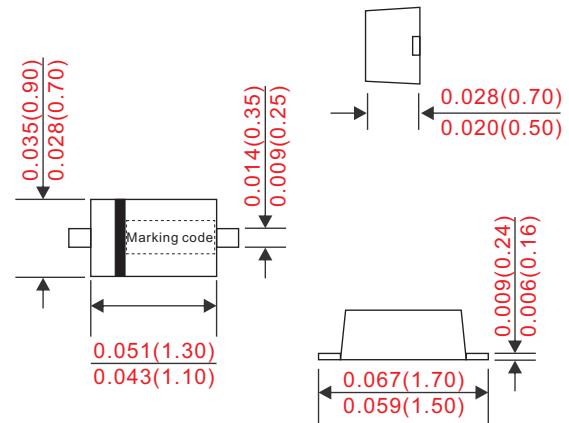
- Low current rectification and high speed switching.
- Extremely small surface mount type.
- Up to 100mA current capability.
- Silicon epitaxial planar chip, metal silicon junction.
- Suffix "G" indicates Halogen-free part, ex. RB520SG-40.
- Lead-free parts meet environmental standards of MIL-STD-19500 /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



■ 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	RB520S-40	UNIT
Marking code		B · D	
Maximum Recurrent Peak Reverse Voltage	V_{RM}	40	V
Continuous reverse voltage	V_R	40	
Maximum Instantaneous Forward Voltage@10mA DC	V_F	0.39	V
Operating Temperature	T_J	-40 ~ +125	°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Mean rectifying current		I_o			200	mA
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			1000	mA
Reverse current	$V_R = 10V$ DC	I_R			1.0	uA
Reverse breakdown voltage	$I_R = 100\mu A$	$V_{(BR)R}$	40			V
Storage temperature		T_{STG}	-40		+125	°C

■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

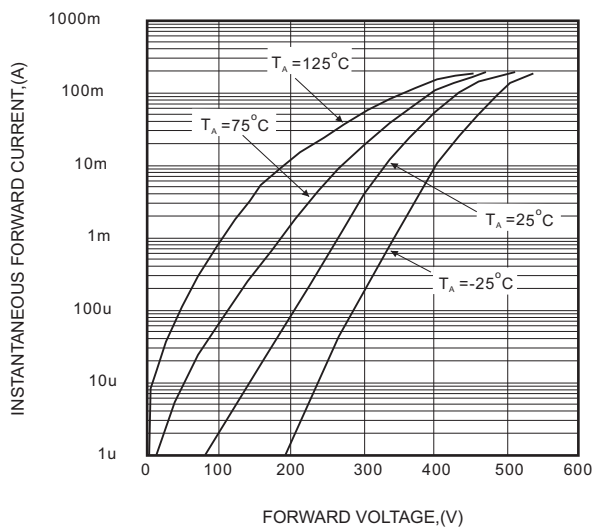


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

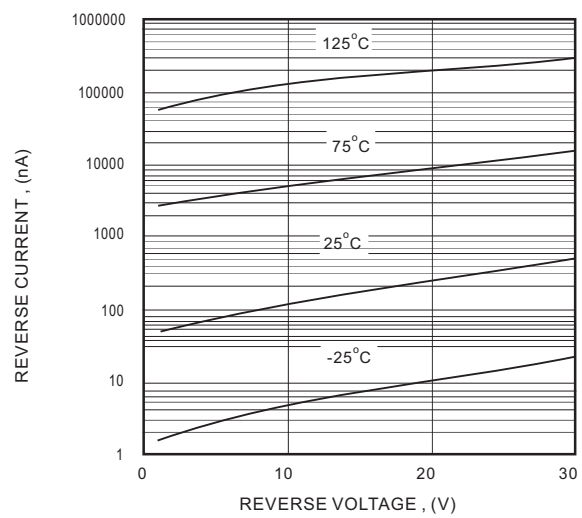
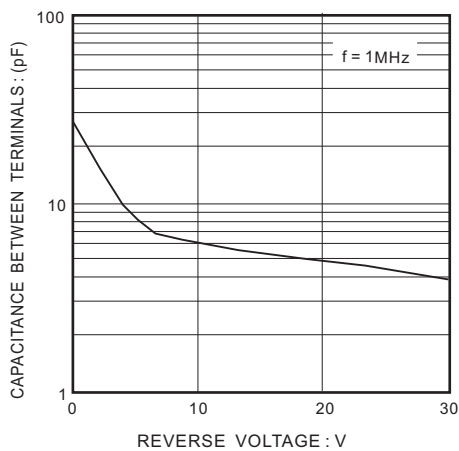
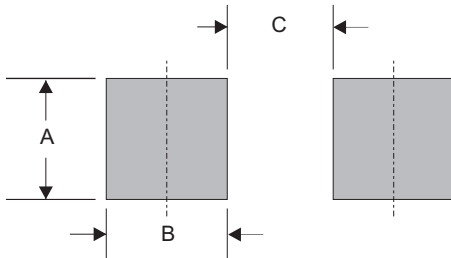


FIG.3-TYPICAL TERMINALS CAPACITANCE



■ 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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