

# 30mA Surface Mount Small Signal Diodes

#### ■ 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.RB751GG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

### ■ Mechanical data

• Epoxy:UL94-V0 rated flame retardant

· Case: Molded plastic, SOD-723

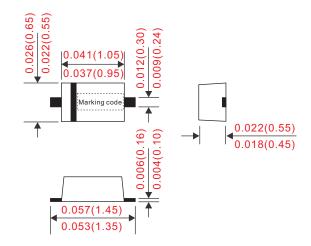
 Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

• Polarity : Indicated by cathode band

• Weight : Approximated 0.00077 gram

#### ■ Outline

SOD-723



Dimensions in inches and (millimeters)

#### ■ Maximum ratings and electrical characteristics

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

Parameter	Symbol	RB751G	UNIT
Marking code		5	
Maximum Recurrent Peak Reverse Voltage	V <sub>RM</sub>	30	V
Continuous reverse voltage	V <sub>R</sub>	30	V
Maximum Instantaneous Forward Voltage@1mA DC	V <sub>F</sub>	0.37	V
Power Dissipation	P <sub>D</sub>	150	mW
Thermal resistance junction to ambient	R <sub>eJA</sub>	600	°C/W
Operating Temperature	T,	-40 ~ +125	°C
Storage temperature	T <sub>STG</sub>	-40 ~ +125	°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Mean rectifying current		Io			30	mA
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I <sub>FSM</sub>			200	mA
Reverse current	V <sub>R</sub> = 30V DC	I <sub>R</sub>			0.5	uA
Capacitance between terminals	V <sub>R</sub> = 1V DC, f = 1MHz	C <sub>T</sub>		2		pF

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### ■ Rating and characteristic curves

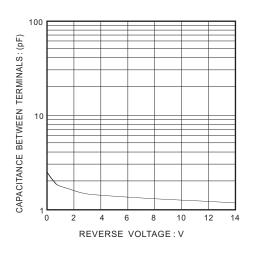
FIG.1-TYPICAL FORWARD

**CHARACTERISTICS** 100u 125°C 10u 75°C REVERSE CURRENT, (uA) 1.0 u 25°C 0.1u 10n Typ. pulse measurement 1n 0 5 10 20 30 35 15 25

REVERSE VOLTAGE, (V)

FIG.2 - TYPICAL REVERSE

FIG.3-TYPICAL TERMINALS CAPACITANCE



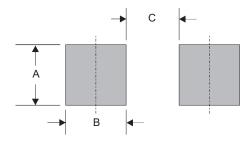
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#### 30mA Surface Mount Small Signal Diodes

#### ■ SOD-723 foot print



А	В	С
0.018 (0.45)	0.020 (0.50)	0.035 (0.90)

Dimensions in inches and (millimeters)

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