

■ Features

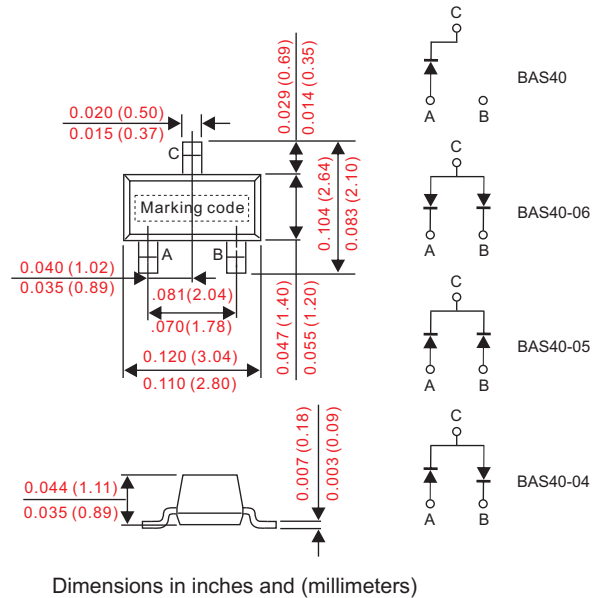
- Low current rectification and high speed switching.
- Small surface mount type.
- Up to 200mA current capability.
- Low forward voltage drop ($V_F = 1.00V$ typ. @40mA).
- Silicon epitaxial planar chip, metal silicon junction.
- Suffix "G" indicates Halogen-free part, ex. BAS40G.
- Lead-free parts for green partner, exceeds environmental standards of MIL-STD-19500 /228

■ Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, SOT-23
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Mounting Position : Any
- Weight : Approximated 0.008 gram

■ Outline

SOT-23

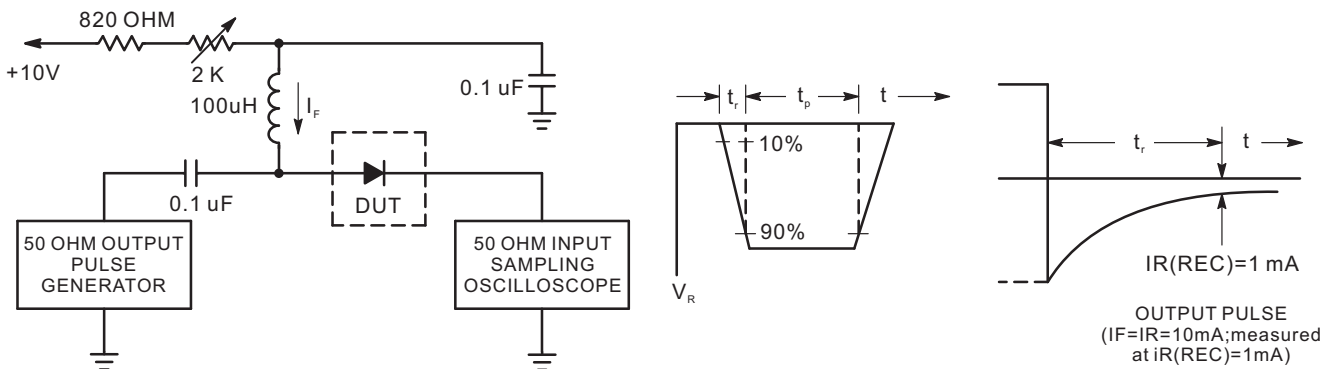
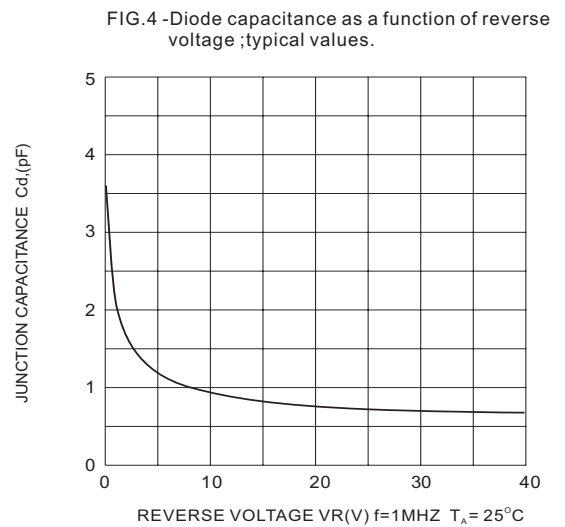
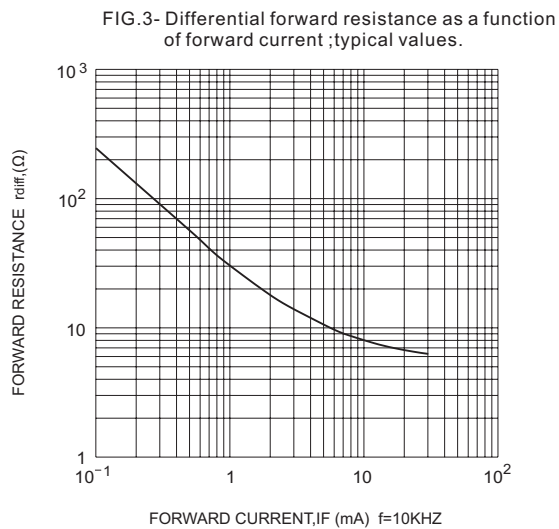
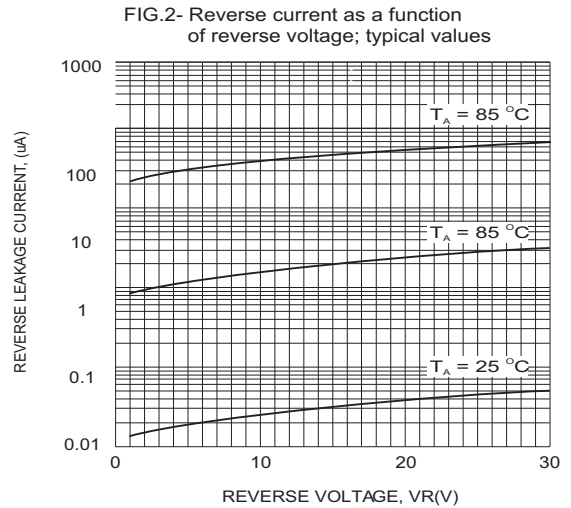
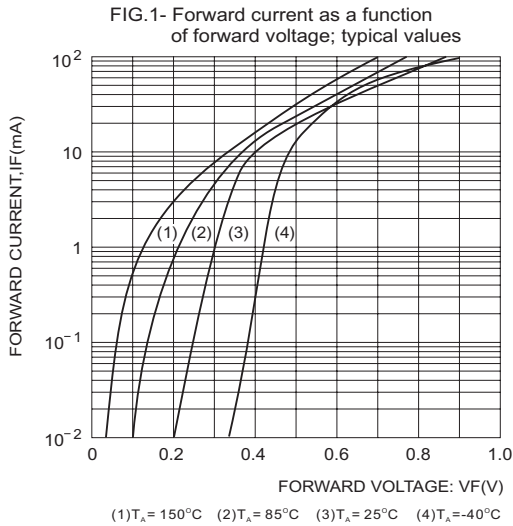


■ Maximum ratings and electrical characteristics

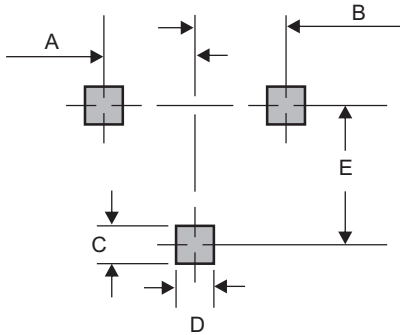
Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	BAS40	BAS40-04	BAS40-05	BAS40-06	UNIT
Marking code		B1	CB	45	L2	
Peak Repetitive Reverse Voltage	V_{RRM}	40				V
Working Peak Reverse Voltage	V_{RWM}					
DC Blocking Voltage	V_R					
Power Dissipation	P_D	150				mW
Forward Continuous Current	I_F	120				mA
Junction Temperature	T_J	+150				°C
Storage Temperature	T_{STG}	-65 ~ +150				°C
Operating ambient temperature	T_{amb}	-65 ~ +150				°C
Repetitive Peak forward surge current	I_{FSM}	120				mA
Non-repetitive peak forward current	I_{FSM}	200				mA
Thermal resistance from junction to ambient	$R_{\theta JA}$	500				K/W
Characteristic	Symbol	MIN.	TYP.	MAX.	UNIT	
Forward Voltage	V_F			0.40 0.56 1.0	V	
Diode Capacitance	C_d			5.0	pF	
Reverse Current	I_R			1 10	uA	

Rating and characteristic curves



■ SOT-23 foot print



A	B	C	D	E
0.037 (0.95)	0.037 (0.95)	0.035 (0.90)	0.031 (0.80)	0.079 (2.00)

Dimensions in inches and (millimeters)

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