

410mW Small Signal Switching Diode
Reverse Voltage 120 to 250 Volts Forward Current 0.2 Amperes

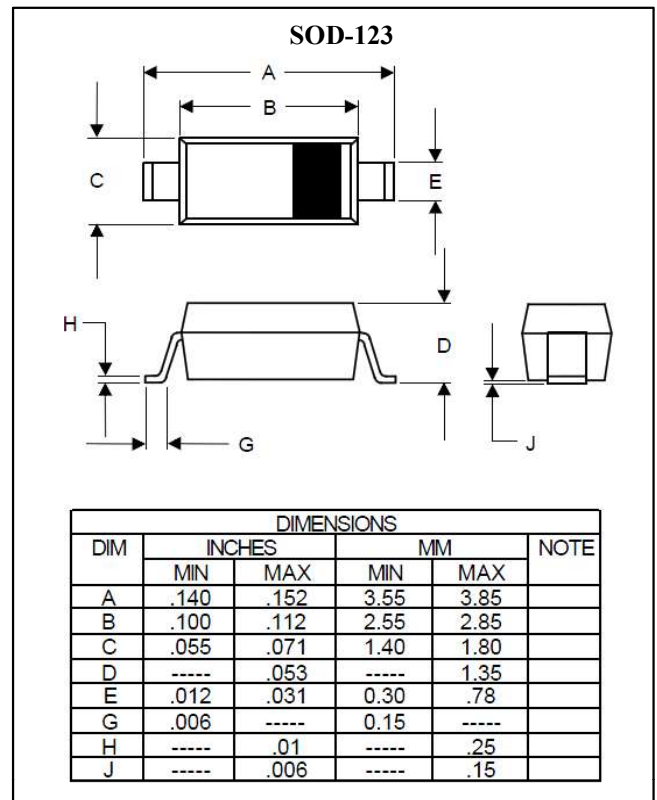
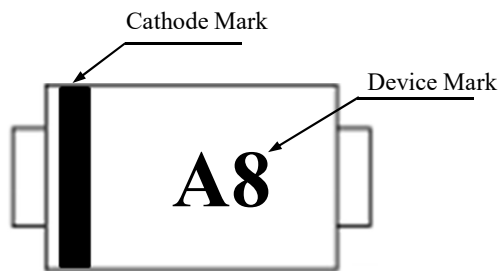
Features

- Silicon Epitaxial Planar Diodes
- This diodes is also available in other case.
- For general purpose switching applications

Mechanical Data

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Indicated by Cathode Band
- Weight: 0.01 grams (approx.)

Marking



Maximum Ratings & Electrical Characteristics (Ta=25°C unless otherwise noted)

Parameter	Device	BAV19W	BAV20W	BAV21W	Unit	Remark
	Mark	A8	T2	T3		
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	120	200	250	V	
Reverse Voltage	V_{RM}	100	150	200	V	
Forward DC Current	I_F	250			mA	
Rectified Current(Average) Half Wave Rectification with Resist. Load	$I_{F(AV)}$	200			mA	
Repetitive Peak Forward Current	I_{FRM}	625			mA	$f > 50\text{Hz}$, $T_a = 25^\circ\text{C}$
Peak Forward Surge Current at $t < 1\text{S}$	I_{FSM}	1.0			A	$T_j = 25^\circ\text{C}$
Power Dissipation	P_{tot}	410			mW	
Thermal Resistance	$R_{th(j-a)}$	375			K/W	
Maximum Instantaneous Forward Voltage	V_F	1.0			V	$I_F = 100\text{mA}$
		1.3			V	$I_F = 200\text{mA}$
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	100			nA	$V_R = V_{RM}$, $T_j = 25^\circ\text{C}$
		15			uA	$V_R = V_{RM}$, $T_j = 100^\circ\text{C}$
Typical Junction Capacitance	C_j	1.5			pF	Note 1
Typical Dynamic Forward Resistance	r_f	5.0			Ω	$I_F = 10\text{mA}$
Maximum Reverse Recovery Time	t_{rr}	50			ns	
Operation Junction Temperature Range	T_j	-55 to +150			$^\circ\text{C}$	
Storage Temperature Range	T_{STG}	-55 to +150			$^\circ\text{C}$	

Note 1. Measured at 1.0MHz and applied reverse voltage of Zero volts
 Note 2. Measured at $T_p = 0.1\mu\text{s}$, rise time $< 30\text{ns}$ and $f_p = 5$ to 100kHz

Ratings and Characteristics Curves (Ta=25°C unless otherwise noted)

Fig.1 Typical instantaneous forward characteristics

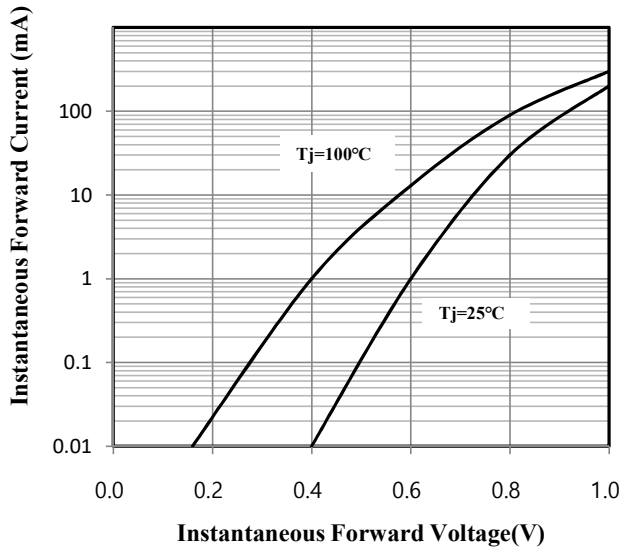


Fig.2 Dynamic forward resistance versus forward current

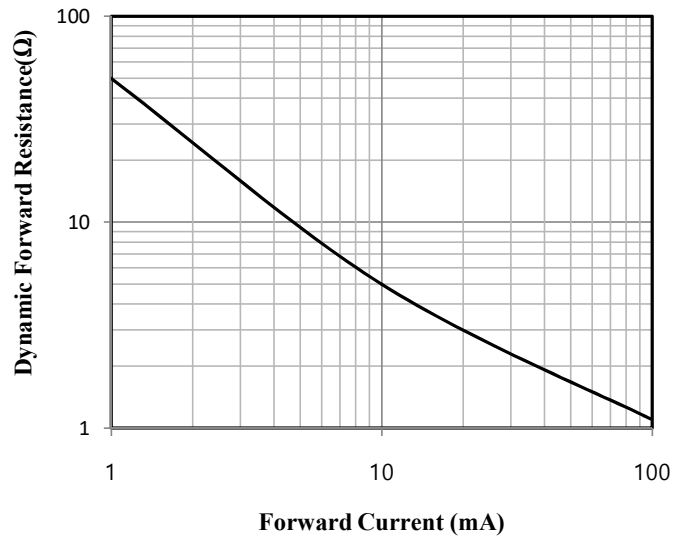


Fig.3 Admissible power dissipation versus ambient temperature

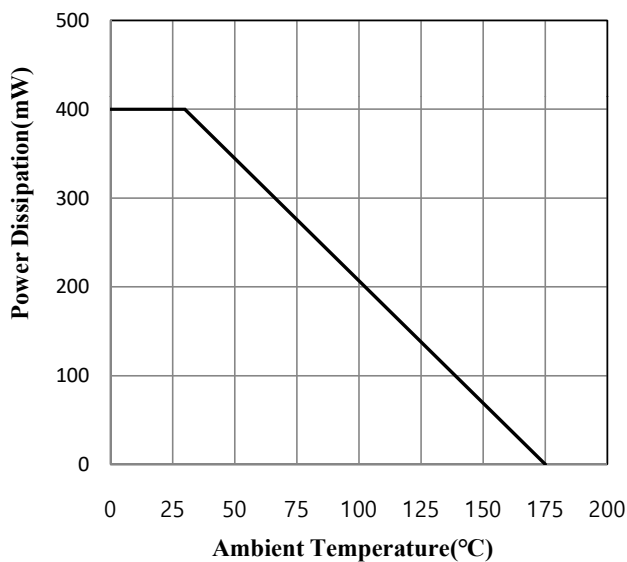


Fig.4 Capacitance versus reverse voltage

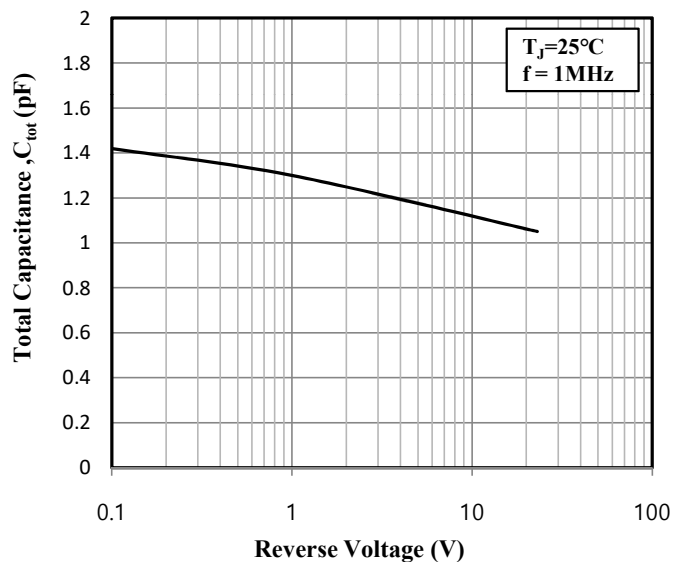


Fig.5 Leakage current versus junction temperature

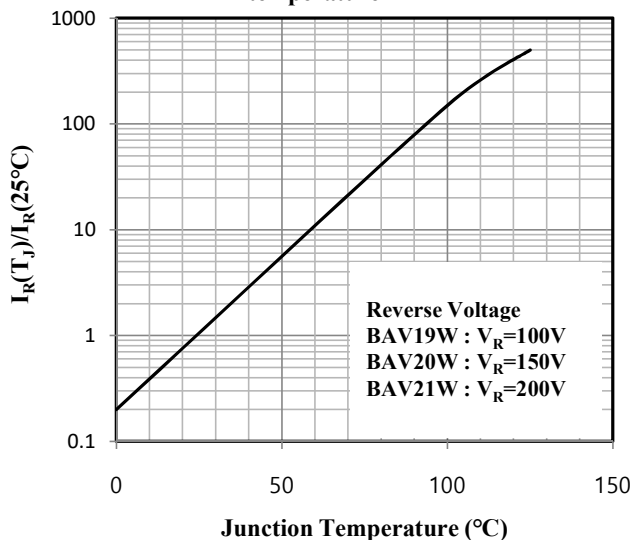


Fig.6 Admissible repetitive peak forward current versus pulse duration

