

SMALL SIGNAL DIODES

FEATURES

- * Silicon epitaxial planar diode
- * Fast switching diode
- * Also available in case SOT23 with designation BAS16
- * P/N suffix V means AEC-Q101 qualified, e.g: BAS16WV
- * P/N suffix V means Halogen-free

MECHANICAL DATA

BAS16W

Case: SOD-123 Plastic Case

Weight: approx. 0.01 g

Marking Code: A6

BAS16WS

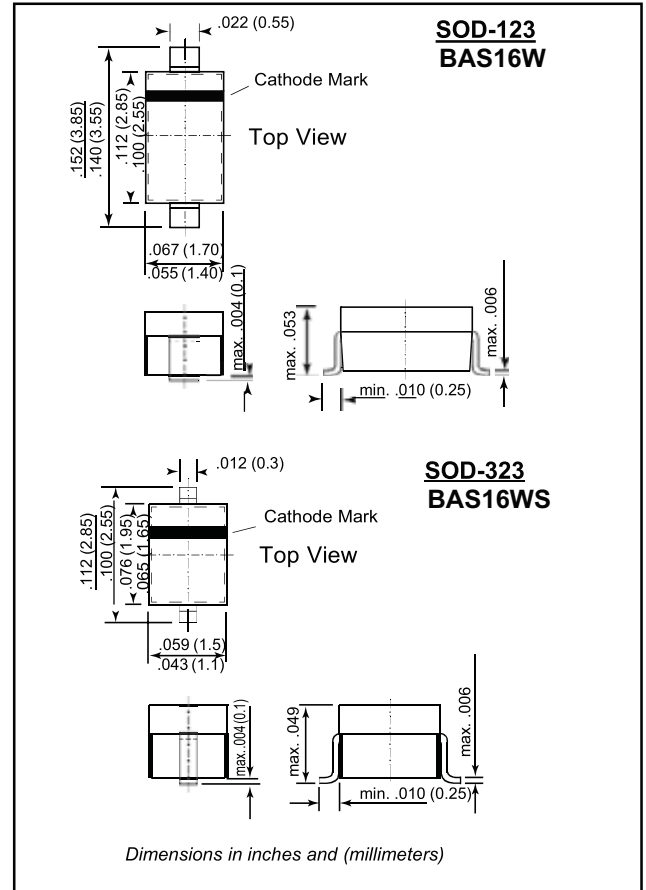
Case: SOD-323 Plastic Case

Weight: approx. 0.004 g

Marking Code: A6

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

	SYMBOL	VALUE	UNIT
Reverse Voltage	V_R	75	V
Peak Reverse Voltage	V_{RM}	100	V
Forward Current (continuous)	I_F	250	mA
Non-Repetitive Peak Forward Current			
at $t=1\mu s$	I_{FSM}	2.0	A
at $t=1ms$	I_{FSM}	1.0	A
at $t=1s$	I_{FSM}	0.5	A
Power Dissipation at $T_{amb}=25\text{ }^\circ C$	BAS16W BAS16WS	350 ¹⁾ 200 ¹⁾	mW mW
Maxium Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_s	- 65 to +150 ¹⁾	$^\circ C$

¹⁾Valid provided electrodes are kept at ambient temperture.

ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage					
at $I_F = 1 \text{ mA}$	V_F	–	–	715	mV
at $I_F = 10 \text{ mA}$	V_F	–	–	855	mV
at $I_F = 50 \text{ mA}$	V_F	–	–	1.00	V
at $I_F = 150 \text{ mA}$	V_F	–	–	1.25	V
Leakage Current					
at $V_R = 25 \text{ V}$, $T_j = 150 \text{ °C}$	I_R	–	–	30	μA
at $V_R = 75 \text{ V}$	I_R	–	–	1	μA
at $V_R = 75 \text{ V}$, $T_j = 150 \text{ °C}$	I_R	–	–	50	μA
Capacitance	C_{tot}	–	–	2	pF
at $V_R = 0$; $f = 1 \text{ MHz}$					
Reverse Recovery Time	t_{rr}	–	–	6	ns
from $I_F = 10 \text{ mA}$ to $I_R = 10 \text{ mA}$ $I_R = 1 \text{ mA}$, $R_L = 100\Omega$					
Thermal Resistance					
Junction to Ambient Air	R_{thJA}	–	–	375 ¹⁾ 650 ¹⁾	$^{\circ}\text{C/W}$ $^{\circ}\text{C/W}$
	BAS16W BAS16WS				

¹⁾Valid provided that electrodes are kept at ambient temperature

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-123	-T	3,000	---	---	178	390*205*310	120,000	5.29

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-323	-T	3,000	15,000	---	---	178	390*205*31	120,000	5.17

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