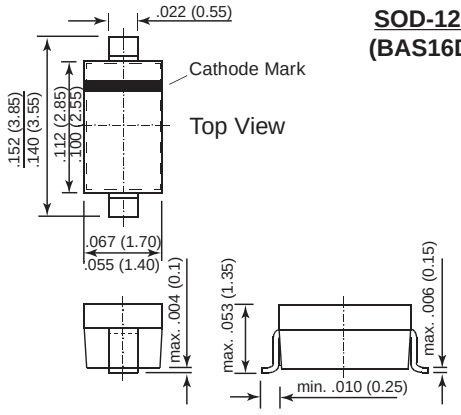
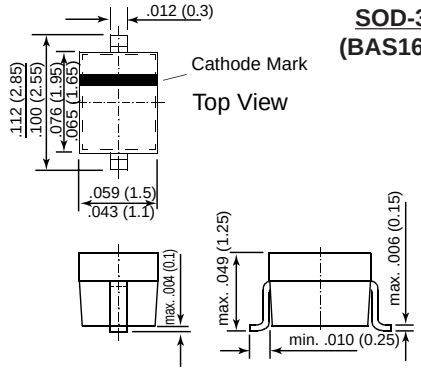
BAS16D, BAS16WS

SMALL SIGNAL DIODES



SOD-123
(BAS16D)



SOD-323
(BAS16WS)

Dimensions in inches and (millimeters)

FEATURES

- Silicon Epitaxial Planar Diode
- Fast switching diode.
- Also available in case SOT-23 with designation BAS16.

MECHANICAL DATA

BAS16D
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.

		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 = 1µs		I_{FSM}	2.0	A
at t = 1ms		I_{FSM}	1.0	A
at t = 1s		I_{FSM}	0.5	A
Power Dissipation at Tamb = 25 °C	**BAS16D**	P_{tot}	350[1)]	mW
	BAS16WS		200[1)]	mW
Maxium Junction Temperature		T_j	150	°C
Storage Temperature Range		T_S	– 65 to +150[1)]	°C

[1)] Valid provided electrodes are kept at ambient temperture.

GENERAL SEMICONDUCTOR®

ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

		Symbol	Min.	Typ.	Max.	Unit
Forward Voltage						
at I_F = 1 mA		V_F	–	–	715	mV
at I_F = 10 mA		V_F	–	–	855	mV
at I_F = 50 mA		V_F	–	–	1.00	V
at I_F = 150 mA		V_F	–	–	1.25	V
Leakage Current						
at V_R = 25 V, T_j = 150 °C		I_R	–	–	30	µA
at V_R = 75 V		I_R	–	–	1	µA
at V_R = 75 V, T_j = 150 °C		I_R	–	–	50	µA
Capacitance at V_R = 0; f = 1 MHz		C_{tot}	–	–	2	pF
Reverse Recovery Time from I_F = 10 mA to I_R = 10 mA I_R = 1 mA, R_L = 100Ω		t_{rr}	–	–	6	ns
Thermal Resistance	**BAS16D**	R_{thJA}	–	–	375[1)]	°C/W
Junction to Ambient Air	**BAS16WS**				650[1)]	°C/W

[1)]Valid provided that electrodes are kept at ambient temperature