



New Product

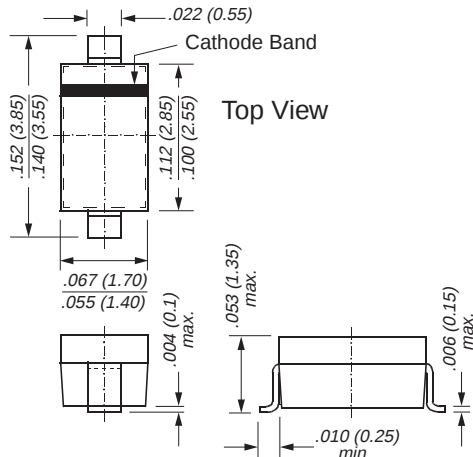
BAS16D, BAS16WS

Vishay Semiconductors
formerly General Semiconductor

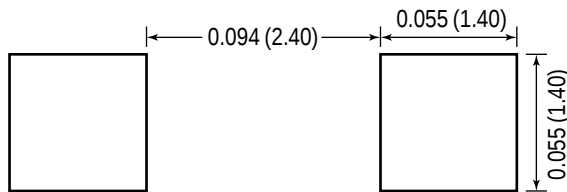
Small-Signal Diodes



SOD-123 (BAS16D)



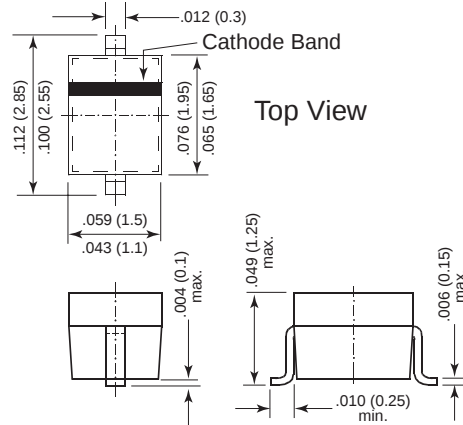
Mounting Pad Layout SOD-123



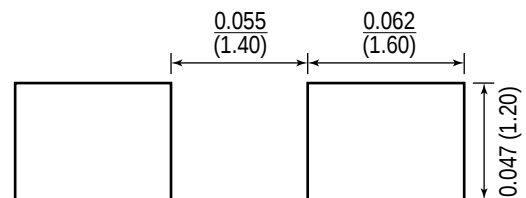
Features

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

SOD-323 (BAS16WS)



Mounting Pad Layout SOD-323



Mechanical Data

Case: BAS16D = SOD-123 Plastic Case
BAS16WS = SOD-323 Plastic Case

Weight: BAS16D = approx. 0.01g
BAS16WS = approx. 0.004g

Marking Code: A6

Packaging Codes/Options:

SOD-123: D3/10K per 13" reel (8mm tape), 30K/box
D4/3K per 7" reel (8mm tape), 30K/box
SOD-323: D5/10K per 13" reel (8mm tape), 30K/box
D6/3K per 7" reel (8mm tape), 30K/box

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	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 at t = 1ms at t = 1s	I _{FSM}	2.0 1.0 0.5	A
Power Dissipation at T _{amb} = 25°C BAS16D BAS16WS	P _{tot}	350 ⁽¹⁾ 200 ⁽¹⁾	mW
Maximum Junction Temperature	T _j	150	°C
Storage Temperature Range	T _s	-65 to +150 ⁽¹⁾	°C

Note: (1) Valid provided electrodes are kept at ambient temperature

Electrical Characteristics ($T_J = 25^\circ\text{C}$ unless otherwise noted)

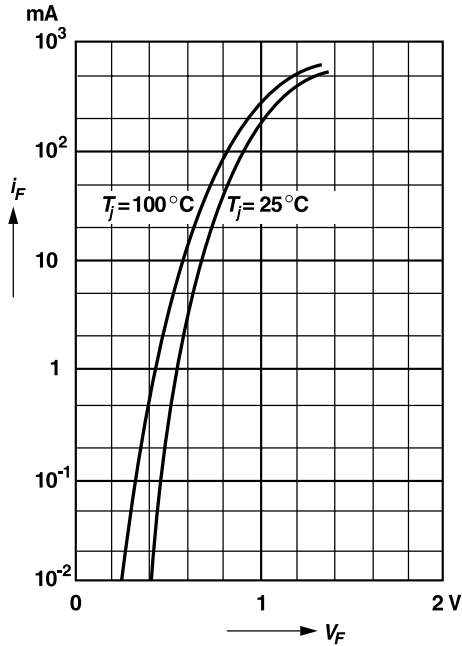
Parameter	Symbol	Min	Typ	Max	Unit
Forward Voltage at $I_F = 1\text{mA}$	V_F	—	—	715	mV
$I_F = 10\text{mA}$		—	—	855	mV
$I_F = 50\text{mA}$		—	—	1.00	V
$I_F = 150\text{mA}$		—	—	1.25	V
Leakage Current at $V_R = 25\text{V}$, $T_J = 150^\circ\text{C}$	I_R	—	—	30	μA
at $V_R = 75\text{V}$		—	—	1	
at $V_R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

(1) Valid provided that electrodes are kept at ambient temperature

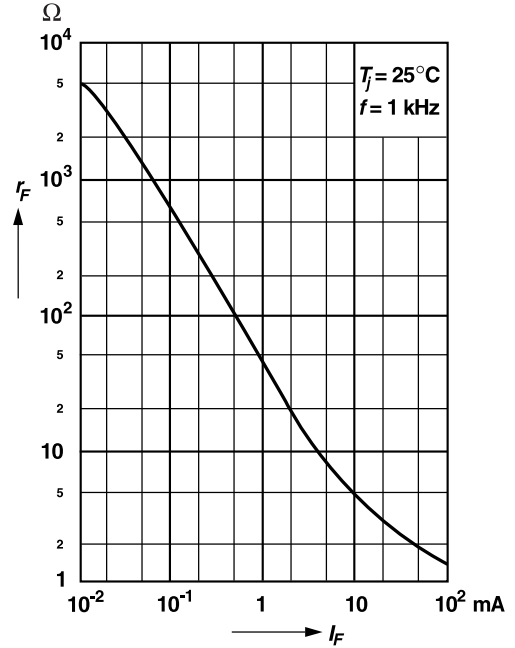


Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Forward characteristics

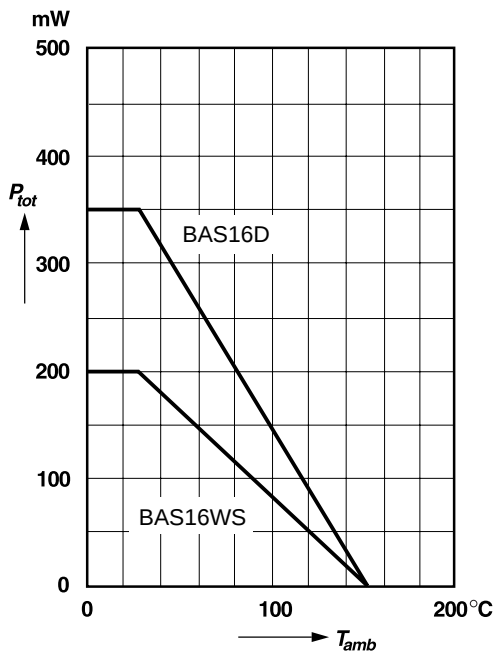


Dynamic forward resistance versus forward current

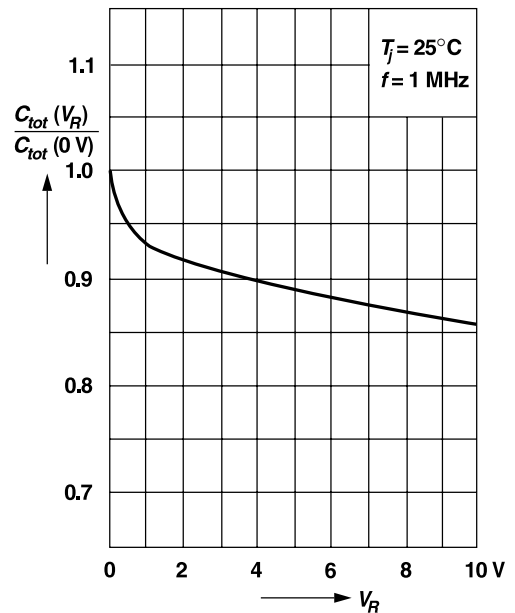


Admissible power dissipation versus ambient temperature

For conditions, see footnote in table
"Absolute Maximum Ratings"

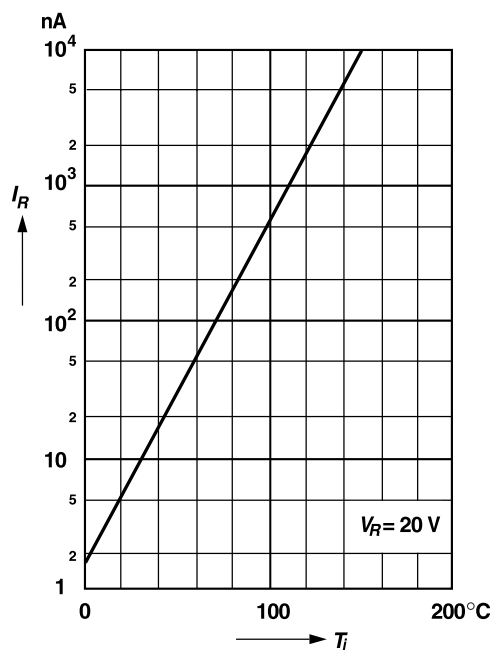


Relative capacitance versus reverse voltage



Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Leakage current
versus junction temperature



Admissible repetitive peak forward current versus pulse duration

For conditions, see footnote in table "Absolute Maximum Ratings"

