



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Small Signal Switching Diodes



FEATURES

- Silicon planar diodes
- Very low reverse current
- AEC-Q101 qualified
- Material categorization:
For definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE

APPLICATIONS

- Protection circuits, time delay circuits, peak follower circuits, logarithmic amplifiers

MECHANICAL DATA

Case: DO-35

Weight: approx. 125 mg

Cathode band color: black

Packaging codes/options:

TR/10K per 13" reel (52 mm tape), 50K/box

TAP/10K per ammpack (52 mm tape), 50K/box

PARTS TABLE

PART	TYPE DIFFERENTIATION	ORDERING CODE	TYPE MARKING	INTERNAL CONSTRUCTION	REMARKS
BAS33	$V_{RRM} = 40\text{ V}$	BAS33-TAP or BAS33-TR	BAS33	Single diode	Tape and reel/ammopack
BAS34	$V_{RRM} = 70\text{ V}$	BAS34-TAP or BAS34-TR	BAS34	Single diode	Tape and reel/ammopack

ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

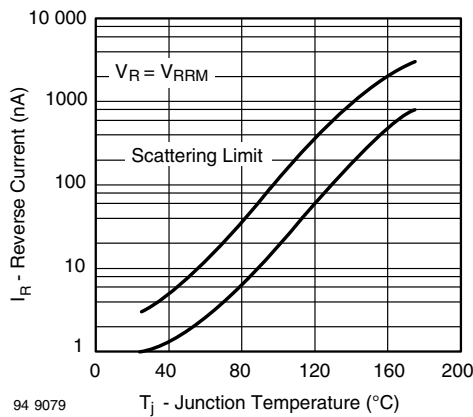
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		BAS33	V_{RRM}	40	V
		BAS34	V_{RRM}	70	V
Reverse voltage		BAS33	V_R	30	V
		BAS34	V_R	60	V
Peak forward surge current	$t_p = 1\text{ }\mu\text{s}$		I_{FSM}	2	A
Forward continuous current			I_F	200	mA

THERMAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air	$l = 4\text{ mm}, T_L = \text{constant}$	R_{thJA}	350	K/W
Junction temperature		T_j	175	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	- 65 to + 175	$^{\circ}\text{C}$

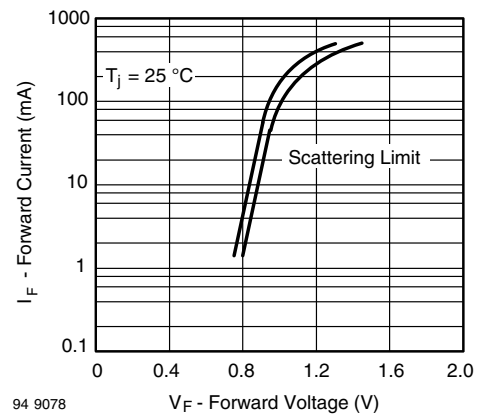
ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	I _F = 100 mA		V _F			1	V
Reverse current	E ≤ 300 lx, V _R		I _R		1	3	nA
	E ≤ 300 lx, V _R , T _j = 125 °C		I _R			0.5	μA
	E ≤ 300 lx, V _R = 15 V	BAS33	I _R		0.5	1	nA
	E ≤ 300 lx, V _R = 30 V	BAS34	I _R		0.5	1	nA
Breakdown voltage	I _R = 5 μA, t _p /T = 0.01, t _p = 0.3 ms	BAS33	V _(BR)	40			V
		BAS34	V _(BR)	70			V
Diode capacitance	V _R = 0 V, f = 1 MHz,		C _D			3	pF

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)



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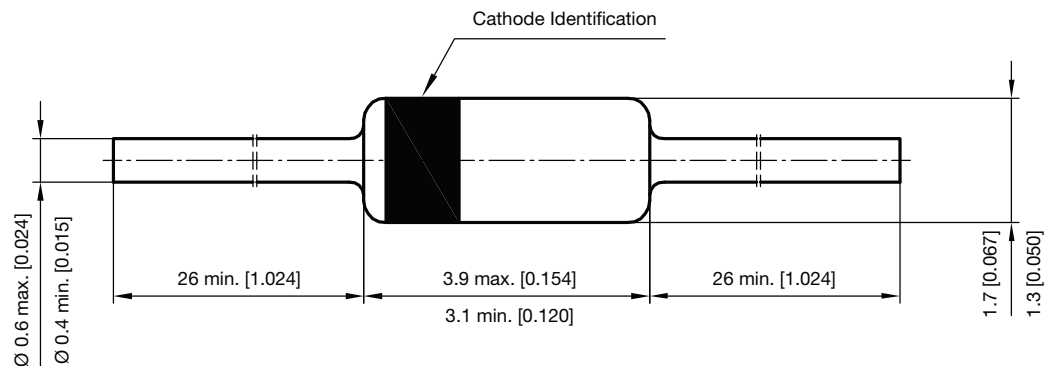
Fig. 1 - Reverse Current vs. Junction Temperature



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Fig. 2 - Forward Current vs. Forward Voltage

PACKAGE DIMENSIONS in millimeters (inches): DO-35



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