

# Small Signal Switching Diode



## FEATURES

- Silicon epitaxial planar diode
- Material categorization:  
for definitions of compliance please see  
[www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

## APPLICATIONS

- Extreme fast switches



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

## ADDITIONAL RESOURCES



## MECHANICAL DATA

**Case:** DO-35 (DO-204AH)

**Weight:** approx. 125 mg

**Cathode band color:** black

**Packaging codes / options:**

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

## PARTS TABLE

PART	ORDERING CODE	TYPE MARKING	CIRCUIT CONFIGURATION	REMARKS
BAW75	BAW75-TAP	BAW75	Single	Ampack

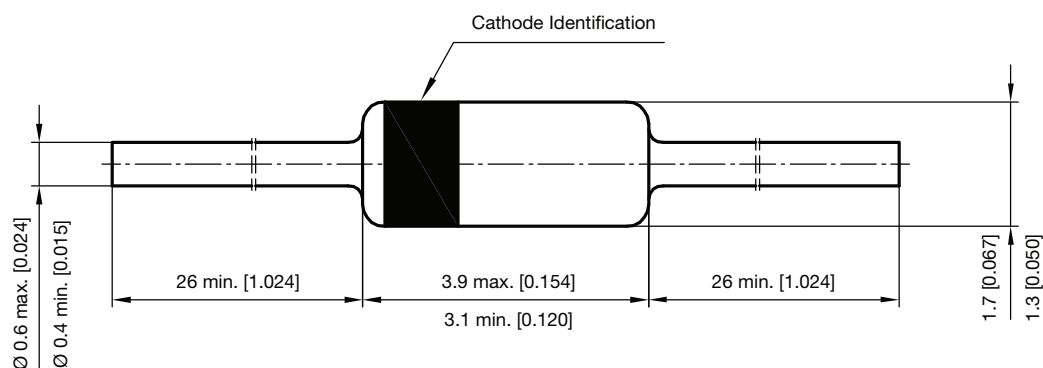
## ABSOLUTE MAXIMUM RATINGS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		$V_{RRM}$	35	V
Reverse voltage		$V_R$	25	V
Peak forward surge current	$t_p = 1\text{ }\mu\text{s}$	$I_{FSM}$	2	A
Repetitive peak forward current		$I_{FRM}$	450	mA
Forward continuous current		$I_F$	300	mA
Average forward current	$V_R = 0$	$I_{F(AV)}$	150	mA
Power dissipation	$I = 4\text{ mm}, T_L = 45\text{ }^{\circ}\text{C}$	$P_{tot}$	440	mW
	$I = 4\text{ mm}, T_L \leq 25\text{ }^{\circ}\text{C}$	$P_{tot}$	500	mW

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

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

<b>ELECTRICAL CHARACTERISTICS</b> ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 30\text{ mA}$	$V_F$			1	V
Reverse current	$V_R = 25\text{ V}$	$I_R$			100	nA
	$V_R = 25\text{ V}$ , $T_J = 150\text{ }^{\circ}\text{C}$	$I_R$			100	$\mu\text{A}$
Breakdown voltage	$I_R = 5\text{ }\mu\text{A}$ , $t_p/T = 0.01$ , $t_p = 0.3\text{ ms}$	$V_{(BR)}$	35			V
Diode capacitance	$V_R = 0\text{ V}$ , $f = 1\text{ MHz}$ , $V_{HF} = 50\text{ mV}$	$C_D$			4	pF
Reverse recovery time	$I_F = I_R = 10\text{ mA}$ , $i_R = 1\text{ mA}$	$t_{rr}$			4	ns
	$I_F = 10\text{ mA}$ , $V_R = 6\text{ V}$ , $i_R = 1\text{ mA}$ , $R_L = 100\text{ }\Omega$	$t_{rr}$			2	ns

**PACKAGE DIMENSIONS** in millimeters (inches): **DO-35 (DO-204AH)**


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