



# Small Signal Switching Diode



### FEATURES

- Silicon epitaxial planar diode
- AEC-Q101 qualified
- Material categorization:  
For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



RoHS COMPLIANT HALOGEN FREE

### APPLICATIONS

- Extreme fast switches

### MECHANICAL DATA

Case: DO-35

Weight: approx. 125 mg

Cathode band color: black

Packaging codes/options:

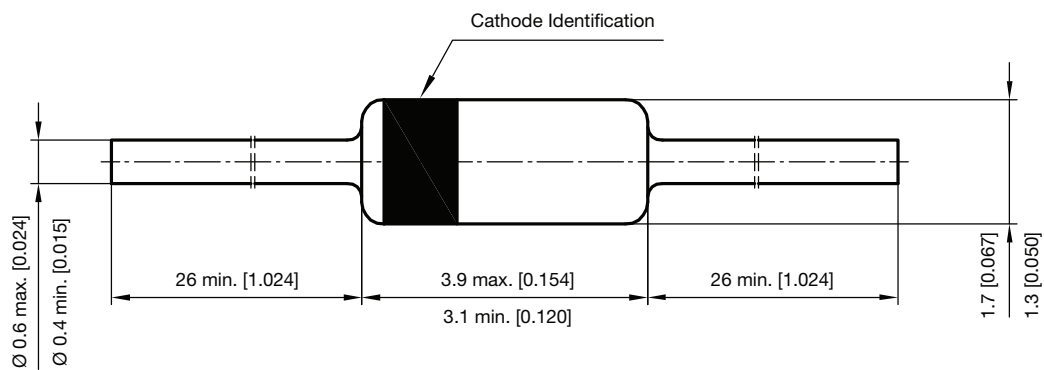
TAP/10K per ammpack (52 mm tape), 50K/box

PARTS TABLE				
PART	ORDERING CODE	TYPE MARKING	INTERNAL CONSTRUCTION	REMARKS
BAW75	BAW75-TAP	BAW75	Single diode	Ampmpack

ABSOLUTE MAXIMUM RATINGS (T <sub>amb</sub> = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		V <sub>RRM</sub>	35	V
Reverse voltage		V <sub>R</sub>	25	V
Peak forward surge current	t <sub>p</sub> = 1 μs	I <sub>FSM</sub>	2	A
Repetitive peak forward current		I <sub>FRM</sub>	450	mA
Forward continuous current		I <sub>F</sub>	300	mA
Average forward current	V <sub>R</sub> = 0	I <sub>F(AV)</sub>	150	mA
Power dissipation	l = 4 mm, T <sub>L</sub> = 45 °C	P <sub>tot</sub>	440	mW
	l = 4 mm, T <sub>L</sub> ≤ 25 °C	P <sub>tot</sub>	500	mW

THERMAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air	l = 4 mm, T <sub>L</sub> = constant	R <sub>thJA</sub>	350	K/W
Junction temperature		T <sub>j</sub>	175	°C
Storage temperature range		T <sub>stg</sub>	- 65 to + 175	°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**


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