

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



RoHS
COMPLIANT
HALOGEN
FREE

APPLICATIONS

- Extreme fast switches

DESIGN SUPPORT TOOLS click logo to get started



MECHANICAL DATA

Case: DO-35 (DO-204AH)

Weight: approx. 125 mg

Cathode band color: black

Packaging codes / options:

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

PARTS TABLE

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

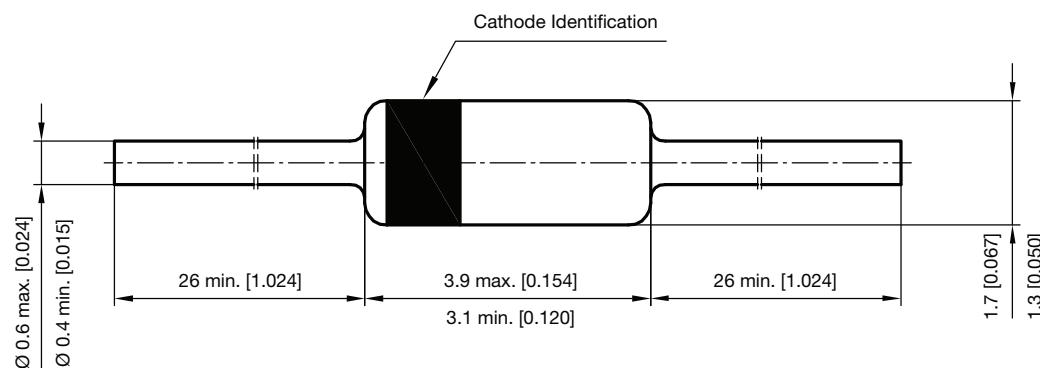
ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		V_{RRM}	35	V
Reverse voltage		V_R	25	V
Peak forward surge current	$t_p = 1 \mu\text{s}$	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	$I = 4 \text{ mm}, T_L = 45^{\circ}\text{C}$	P_{tot}	440	mW
	$I = 4 \text{ mm}, T_L \leq 25^{\circ}\text{C}$	P_{tot}	500	mW

THERMAL CHARACTERISTICS ($T_{amb} = 25^{\circ}\text{C}$, 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	°C
Storage temperature range		T_{stg}	-65 to +175	°C

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25^\circ C$, 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
	$V_R = 25 \text{ V}, T_j = 150^\circ C$	I_R			100	μA
Breakdown voltage	$I_R = 5 \mu\text{A}, t_p/T = 0.01, t_p = 0.3 \text{ ms}$	$V_{(BR)}$	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
	$I_F = 10 \text{ mA}, V_R = 6 \text{ V}, i_R = 1 \text{ mA}, R_L = 100 \Omega$	t_{rr}			2	ns

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


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