

Vishay Semiconductors

Small Signal Fast Switching Diode



FEATURES

- Silicon epitaxial planar diode
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

(e2)

RoHS

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:

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

PARTS TABLE						
PART	ORDERING CODE	TYPE MARKING	CIRCUIT CONFIGURATION	REMARKS		
BAW76	BAW76-TR or BAW76-TAP	BAW76	Single	Tape and reel / ammopack		

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Repetitive peak reverse voltage		V_{RRM}	75	V	
Reverse voltage		V _R	50	V	
Peak forward surge current	t _p = 1 μs	I _{FSM}	2	Α	
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	
Dower dissipation	I = 4 mm, T _L = 45 °C	P _{tot}	440	mW	
Power dissipation	I = 4 mm, T _L ≤ 25 °C	P _{tot}	500	mW	

THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT		
Thermal resistance junction to ambient air	I = 4 mm, T _L = constant	R _{thJA}	350	K/W		
Junction temperature		Tj	175	°C		
Storage temperature range		T _{stg}	-65 to +175	°C		

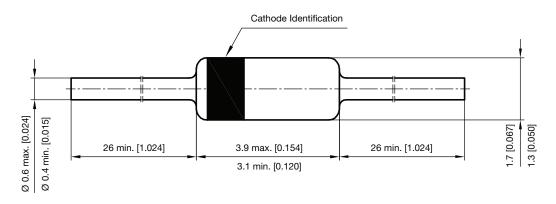


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ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT	
Forward voltage	I _F = 100 mA	V _F			1	V	
Reverse current	$V_R = 50 \text{ V}$	I _R			100	nA	
neverse current	$V_R = 50 \text{ V}, T_j = 150 ^{\circ}\text{C}$	I _R			100	μΑ	
Breakdown voltage	$I_R = 5 \mu A, t_p/T = 0.01,$ $t_p = 0.3 \text{ ms}$	V _(BR)	75			٧	
Diode capacitance	$V_R = 0 V$, $f = 1 MHz$, $V_{HF} = 50 mV$	C _D		1.7	2	pF	
	$I_F = I_R = 10 \text{ mA}, i_R = 1 \text{ mA}$	t _{rr}			4	ns	
Reverse recovery time	I_F = 10 mA, V_R = 6 V, i_R = 1 mA, R_L = 100 Ω	t _{rr}			2	ns	

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



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