



# BAW75 and BAW76

Small-Signal Diode  
Fast Switching Diodes

## Features

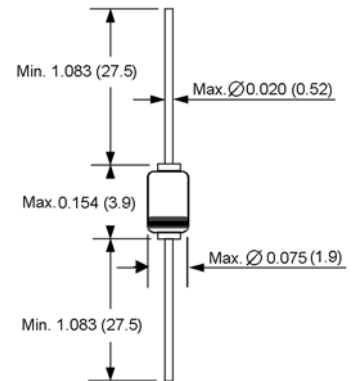
- ◆ Silicon Epitaxial Planar Diode
- ◆ Fast switching diodes.



DO-204AH (DO-35 Glass)

## Mechanical Data

- ◆ Case: DO-35 Glass Case
- ◆ Weight: approx. 0.13g



Dimensions in inches and (millimeters)

## Maximum Ratings and Thermal Characteristics

( $T_A=25^\circ\text{C}$  unless otherwise noted.)

Parameter		Symbol	Limit	Unit
Reverse voltage	BAW75 BAW76	$V_R$	25 50	Volts
Peak reverse voltage	BAW75 BAW76	$V_{RM}$	35 75	Volts
Rectified current (Average) half wave rectification with resist. load at $T_{amb}=25^\circ\text{C}$ and $f_{\geq}50\text{Hz}$		$I_O$	150 <sup>(1)</sup>	mA
Surge forward current at $t < 1\mu\text{s}$ and $T_J=25^\circ\text{C}$		$I_{FSM}$	2.0	Amps
Power dissipation at $T_{amb}=25^\circ\text{C}$		$P_{tot}$	500 <sup>(1)</sup>	mW
Thermal resistance junction to ambient air		$R_{\theta JA}$	0.35 <sup>(1)</sup>	$^\circ\text{C/W}$
Junction temperature		$T_J$	175	$^\circ\text{C}$
Storage temperature range		$T_S$	-65 to +175	$^\circ\text{C}$

**Notes:** 1. Valid provided that leads are kept at ambient temperature at a distance of 8mm from case

## Electrical Characteristics

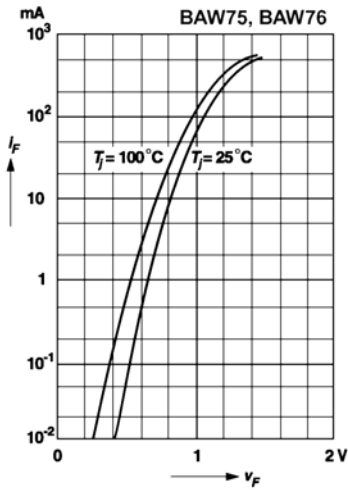
( $T_J=25^\circ\text{C}$  unless otherwise noted.)

Parameter		Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	BAW75 BAW76	$V_F$	at $I_F=30\text{mA}$ at $I_F=100\text{mA}$	-	-	1.0 1.0	Volt
Leakage current	BAW75	$I_R$	$V_R=25\text{V}$	-	-	100	nA
	BAW75		$V_R=25\text{V}, T_J=150^\circ\text{C}$	-	-	100	$\mu\text{A}$
	BAW76		$V_R=50\text{V}$	-	-	100	nA
	BAW76		$V_R=50\text{V}, T_J=150^\circ\text{C}$	-	-	100	$\mu\text{A}$
Reverse breakdown voltage	BAW75 BAW76	$V_{(BR)R}$	tested with 5 $\mu\text{A}$ pulses	35 75	- -	- -	Volts
Capacitance	BAW75 BAW76	$C_{tot}$	$V_F=V_R=0\text{V}$	- -	- -	4.0 2.0	pF
Reverse recovery time		$t_{rr}$	$I_F=10\text{mA}, I_R=10\text{mA}$ $I_F=10\text{mA}$ $I_F=10\text{mA}, I_R=1\text{mA}$ $V_R=6\text{V}, R_L=100\Omega$	- - -	- - -	4 - 2	ns

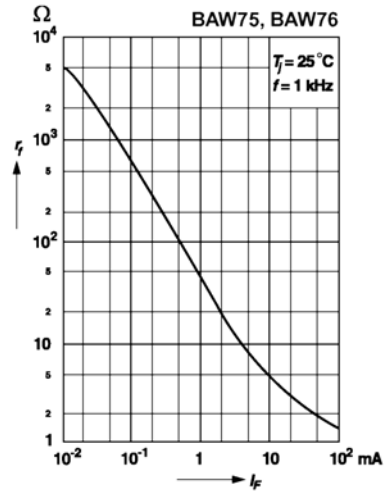
# RATINGS AND CHARACTERISTIC CURVES

( $T_A = 25^\circ\text{C}$  unless otherwise noted.)

**Forward characteristics**

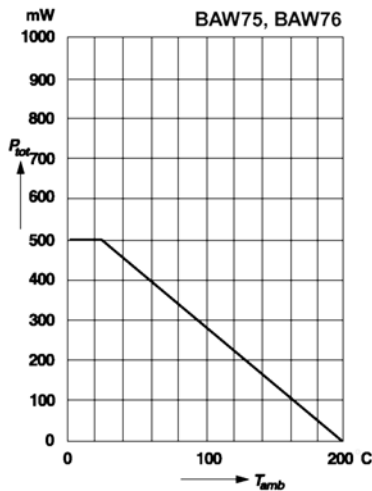


**Dynamic forward resistance versus forward current**

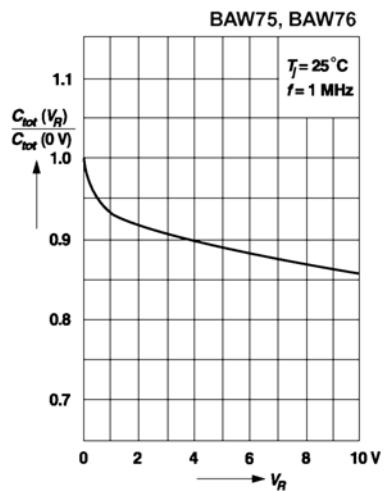


**Admissible power dissipation versus ambient temperature**

Valid provided that electrodes are kept at ambient temperature



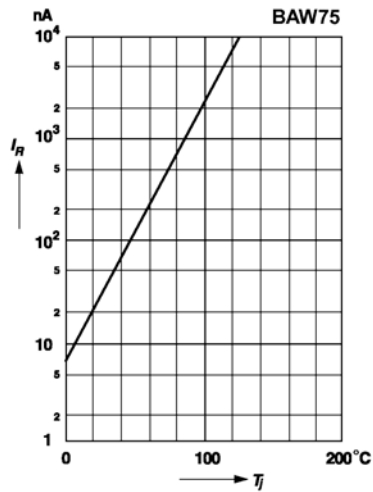
**Relative capacitance versus reverse voltage**



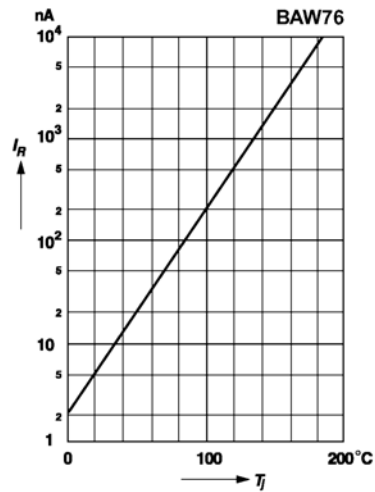
# RATINGS AND CHARACTERISTIC CURVES

( $T_A = 25^\circ\text{C}$  unless otherwise noted.)

**Leakage current versus junction temperature**



**Leakage current versus junction temperature**



**Admissible repetitive peak forward current versus pulse duration**

For conditions, see footnote in table "Absolute Maximum Ratings"

