

## High-speed double diode BAW56

### Features

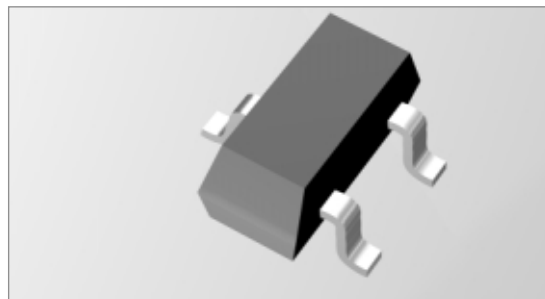
- Small plastic SMD package
- High switching speed: max. 4 ns
- Continuous reverse voltage: max. 75 V
- Repetitive peak reverse voltage: max. 85 V
- Repetitive peak forward current: max. 450 mA

### Applications

- High-speed switching in thick and thin-film circuits.

### Description

- The BAW56 consists of two high-speed switching diodes with common anodes, fabricated in planar technology, and encapsulated in a small SOT23 plastic SMD package.

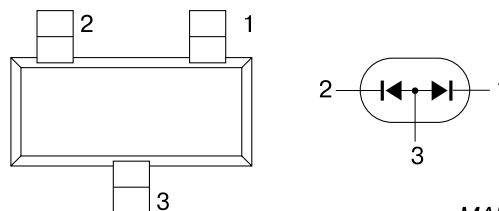


### Pinning

Pin	Description
1	cathode (k1)
2	cathode (k2)
3	common anode

### Marking

TYPE Number	Marking Code
BAW56	A1



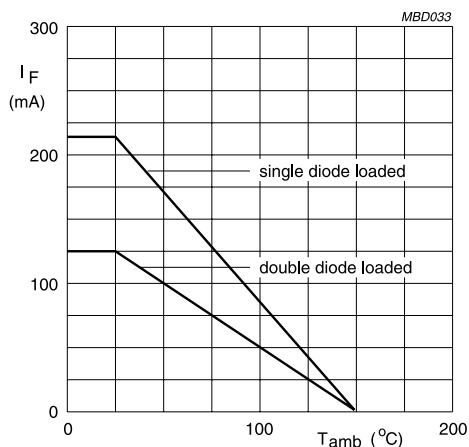
MAM206

**Fig.1** Simplified outline (SOT23) and symbol.

### Thermal Characteristics

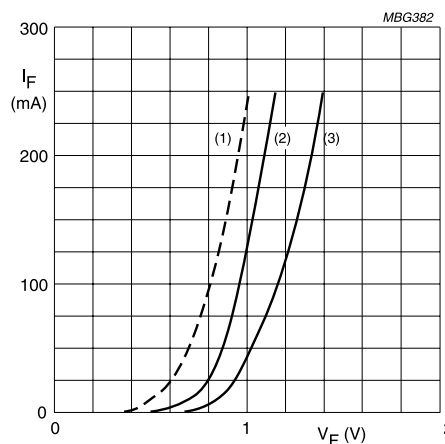
Symbol	Parameter	Conditions	Value	Unit
$R_{thj-tp}$	thermal resistance from junction to tie-point		360	K/W
$R_{thj-a}$	thermal resistance from junction to ambient	note 1	500	K/W

### Grafical Data



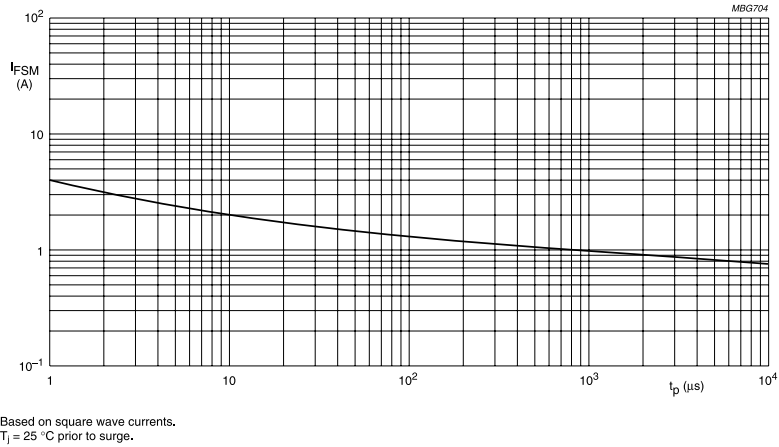
Device mounted on an FR4 printed-circuit board.

**Fig.2** Maximum permissible continuous forward current as a function of ambient temperature.

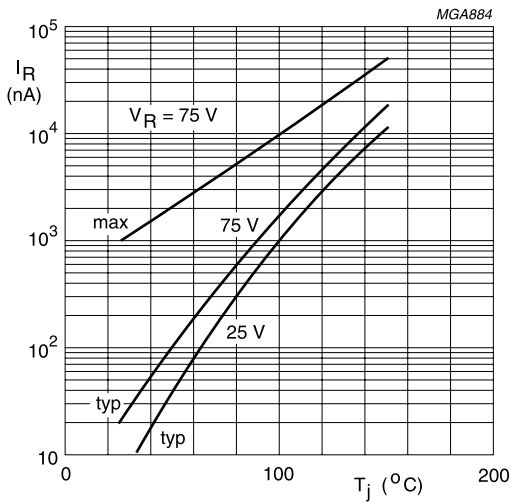


- (1)  $T_j = 150\text{ °C}$ ; typical values.
- (2)  $T_j = 25\text{ °C}$ ; typical values.
- (3)  $T_j = 25\text{ °C}$ ; maximum values.

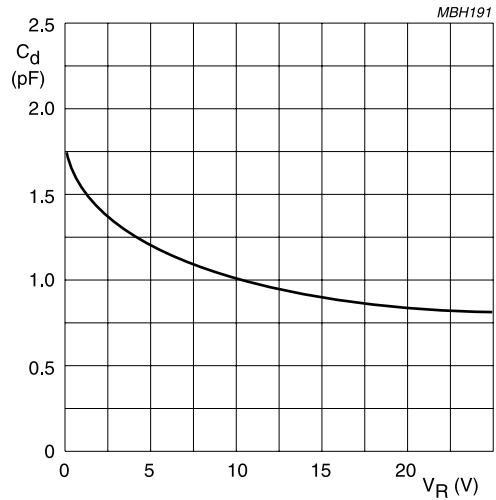
**Fig.3** Forward current as a function of forward voltage.



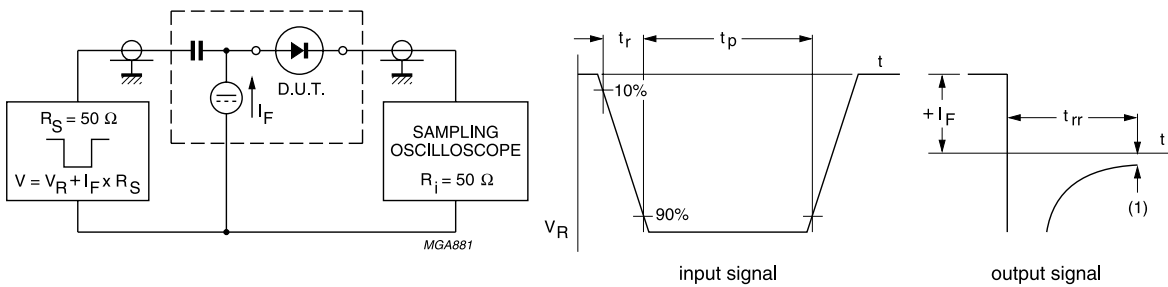
**Fig.4** Maximum permissible non-repetitive peak forward current as a function of pulse duration.



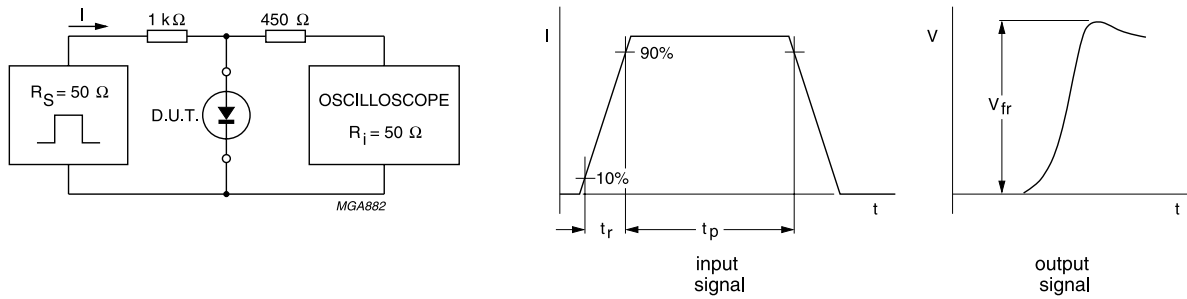
**Fig.5** Reverse current as a function of junction temperature.



**Fig.6** Diode capacitance as a function of reverse voltage; typical values.



**Fig.7** Reverse recovery voltage test circuit and waveforms.

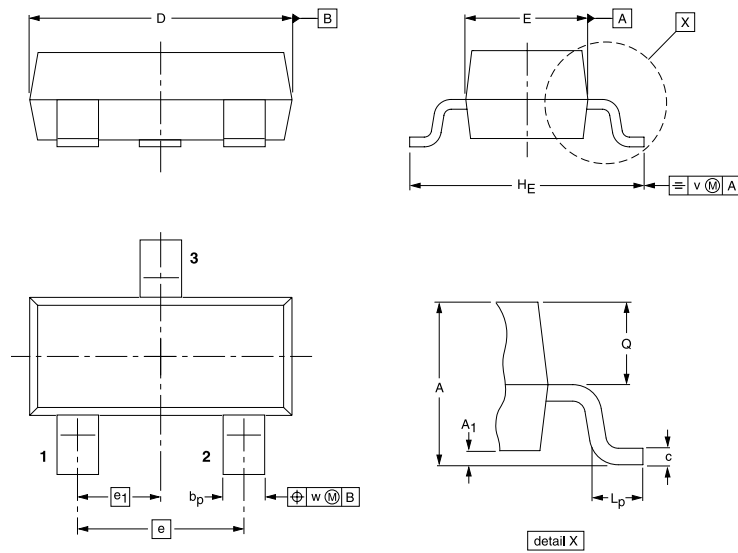


**Fig.8** Forward recovery voltage test circuit and waveforms.

## Package Outline

Plastic surface mounted package; 3 leads

SOT23



### Dimensions (mm are the original dimensions)

Unit	A	A <sub>1</sub> max.	b <sub>p</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	Q	V	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1

Outline Version	References				European Projection	Issue Date
	IEC	JEDEC	EIAJ			
SOT23		TO-236AB				99-09-13