



**TELEFUNKEN electronic**  
Creative Technologies

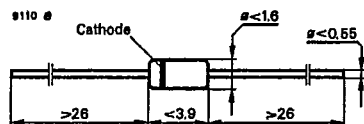
# BAW 24...BAW 27

## Silicon Epitaxial Planar Diodes

T-03-01

Applications: High speed switch in core memory

Dimensions in mm



Standard glass case

54A2 DIN 41 880

JEDEC DO 35

Weight max. 0.15 g

Marking: By letters

### Absolute maximum ratings

Repetitive peak reverse voltage

BAW 24 · BAW 25	$V_{RRM}$	50	V
BAW 26 · BAW 27	$V_{RRM}$	75	V

Reverse voltage

BAW 24 · BAW 25	$V_R$	40	V
BAW 26 · BAW 27	$V_R$	60	V

Surge forward current

$t_p = 1 \mu s$

$I_{FSM}$	4	A
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Forward current

$I_F$	600	mA
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Average forward current

$V_R = 0$

$I_{FAV}$	300	mA
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Power dissipation

$l = 4 \text{ mm}, T_L = 45^\circ \text{C}$

$P_V$	440	mW
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$T_L \leq 25^\circ \text{C}$

$P_V$	500	mW
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Junction temperature

$T_J$	200	$^\circ \text{C}$
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Storage temperature range

$T_{stg}$	- 65....+ 200	$^\circ \text{C}$
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### Maximum thermal resistance

Junction ambient

$l = 4 \text{ mm}, T_L = \text{constant}$

$R_{thJA}$	350	K/W
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## BAW 24...BAW 27

T-03-09

## Characteristics

Min.

Typ.

Max.

 $T_j = 25\text{ }^\circ\text{C}$ , unless otherwise specified

## Forward voltage

$I_F = 10\text{ mA}$	BAW 24, BAW 26	$V_F$	0.8	0.9	V
	BAW 25, BAW 27	$V_F$	0.67	0.75	V
$I_F = 50\text{ mA}$	BAW 24, BAW 26	$V_F$	0.92	1.0	V
	BAW 25, BAW 27	$V_F$	0.8	0.85	V
$I_F = 200\text{ mA}$	BAW 24, BAW 26	$V_F$	1.05	1.2	V
	BAW 25, BAW 27	$V_F$	0.95	1.0	V
$I_F = 400\text{ mA}$	BAW 27	$V_F$	1.12	1.25	V

## Reverse current

$V_R = 40\text{ V}$	BAW 24, BAW 25	$I_R$	100	nA
$V_R = 60\text{ V}$	BAW 26, BAW 27	$I_R$	100	nA

 $T_j = 100\text{ }^\circ\text{C}$ 

$V_R = 40\text{ V}$	BAW 24, BAW 25	$I_R$	50	$\mu\text{A}$
$V_R = 60\text{ V}$	BAW 26, BAW 27	$I_R$	50	$\mu\text{A}$

## Breakdown voltage

$I_R = 5\text{ }\mu\text{A}$	BAW 24, BAW 25	$V_{(BR)}^{1)}$	50	V
	BAW 26, BAW 27	$V_{(BR)}^{1)}$	75	V

## Diode capacitance

$V_R = 0, f = 1\text{ MHz}, V_{HF} = 50\text{ mV}$	$C_D$	4	pF
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## Reverse recovery time

$I_F = I_R = 10 \dots 100\text{ mA}, I_R = 0.1 \cdot I_F$	$t_{rr}$	6	ns
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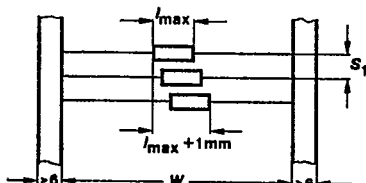
<sup>1)</sup>  $\frac{t_p}{T} = 0.01, t_p = 0.3\text{ ms}$

## 8. Taped devices

### 8.1. Tape specification for diodes and rectifiers with axial leads

T-91-20

Diodes and rectifiers with axial leads are normally delivered in taped form, according to IEC 286-1 (see Fig. 8.1). The cathode side is designated by a coloured tape. Tape devices are delivered either on reels (normal version), or on request folded in cartons (Ammopack). The GPS-version is normally delivered in Ammopack. Diodes in DO 35 package are also available as radial taped. For details please contact factory.



$$S_1 = 5 \pm 0.5 \text{ for devices with diameter } d < 4.5 \text{ mm}$$

$$= 10 \pm 0.5 \text{ mm for devices with diameter } d > 4.5 \text{ mm}$$

$$W = 53 \pm 2 \text{ mm for normal taped form}$$

$$= 26 \pm 1.5 \text{ for GPS version}$$

Allowable deviation above 10 taped steps  $\pm 2 \text{ mm}$

Fig. 8.1 Standard taped diodes with axial leads

### 8.2. Tape specifications for Surface Mounted Devices (SMDs)

SMDs are delivered either bulk packed or taped on blister tape according to IEC 286-3. The mounting side is oriented to the bottom side of the tape.

For standard taping suffix "GS 08" is added to the type number.

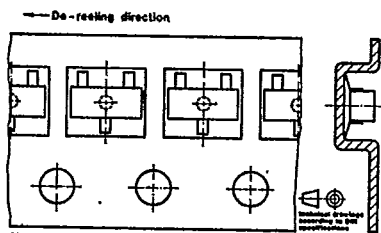


Fig. 8.2 Standard taped SOD 80

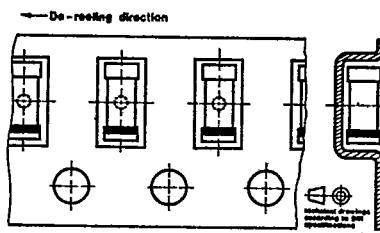
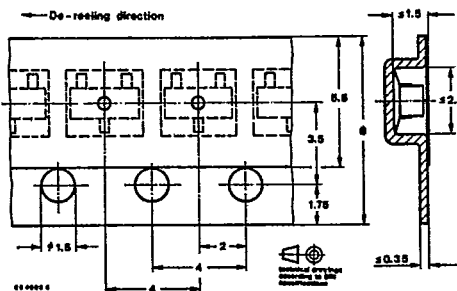
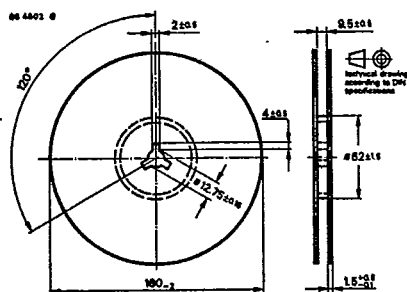


Fig. 8.3 Standard taped SOT 23



**Fig. 8.5 Tape dimensions for SOT 23 and SOT 143 in mm**

**Missing devices:** Maximum of 0.5 % of the total number of components per reel may be missing exclusively missing components at the beginning and at the end of the reel. Maximum of three consecutive components may be missing, provided this gap is followed by six consecutive components. See Fig. 8.6.



**Fig. 8.7 Dimensions of the reel in mm**