TELEFUNKEN electronic
Creative Technologies

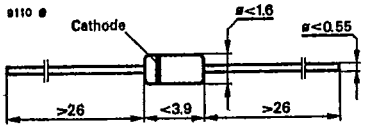
BAY 93

T-03-09

Silicon Epitaxial Planar Diode

Applications: Very fast switches

Dimensions in mm



Standard glass case
54A2 DIN 41880
JEDEC DO 35
Weight max. 0.15 g

Marking: By letters

Absolute maximum ratings

Repetitive peak reverse voltage	V_{RRM}	25	V
Reverse voltage	V_R	20	V
Surge forward current $t_p = 1$ µs	I_{FSM}	2	A
Repetitive peak forward current	I_{FRM}	225	mA
Forward current	I_F	200	mA
Average forward current $V_R = 0$	I_{FAV}	75	mA
Power dissipation $l = 4$ mm, $T_L = 45$ °C $T_L \leq 25$ °C	P_V P_V	440 500	mW mW
Junction temperature	T_j	200	°C
Storage temperature range	T_{stg}	– 55....+ 200	°C

Maximum thermal resistance

Junction ambient $l = 4$ mm, T_L = constant	R_{thJA}	350	K/W

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Characteristics		Min.	Typ.	Max.	
$T_j = 25$ °C, unless otherwise specified					
Forward voltage $I_F = 10$ mA	V_F			1	V
Reverse current $V_R = 10$ V, $T_j = 150$ °C	I_R			100	µA
Breakdown voltage $I_R = 1$ µA	$V_{(BR)}$ [1]	20			V
Diode capacitance $V_R = 0$, $f = 1$ MHz, $V_{HF} = 50$ mV	C_D			5	pF
Reverse recovery time $I_F = I_R = 10$ mA, $I_R = 1$ mA	t_{rr}			15	ns

1) $\frac{t_p}{T} = 0.01$, $t_p = 0.3$ ms

8. Taped devices

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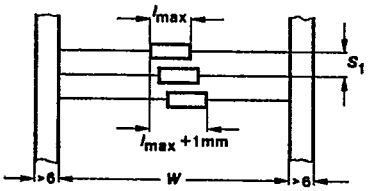
8.1. Tape specification for diodes and rectifiers with axial leads

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 ± 0.5 for devices with diameter $d < 4.5$ mm
= 10 ± 0.5 mm for devices with diameter $d > 4.5$ mm
W = 53 ± 2 mm for normal taped form
= 26 + 1.5 for GPS version

Allovable deviation above 10 taped steps ± 2 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.

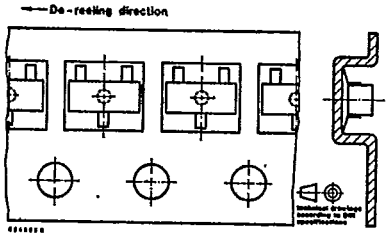


Fig. 8.2 Standard taped SOD 80

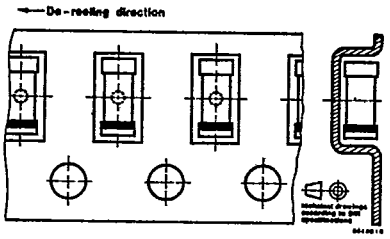


Fig. 8.3 Standard taped SOT 23

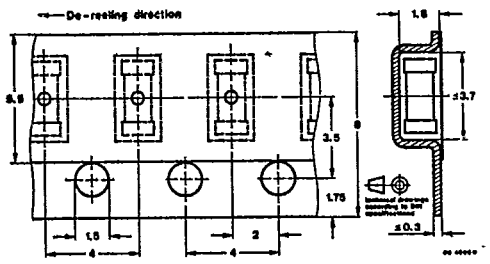


Fig. 8.4 Tape dimensions for SOD 80 in mm

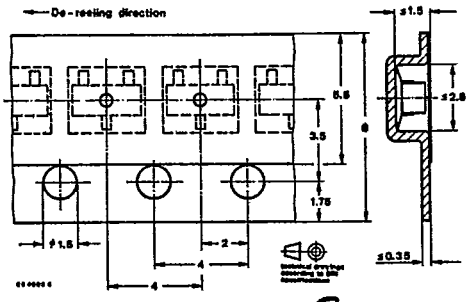


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Fig. 8.5 Tape dimensions for SOT 23 and SOT 143 in mm

Quantities per reel: SOD 80 - 2500 comp. SOT 23 - 3000 comp. SOT 143 - 3000 comp.

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.

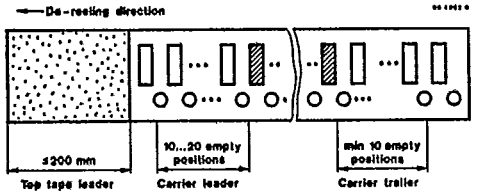

Fig. 8.6 Beginning and end of the reel

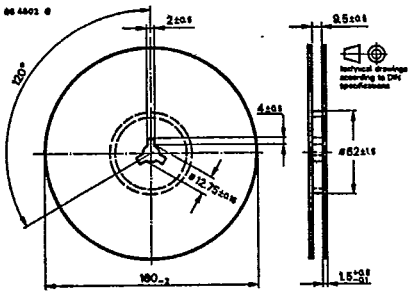

Fig. 8.7 Dimensions of the reel in mm