

T-33-05

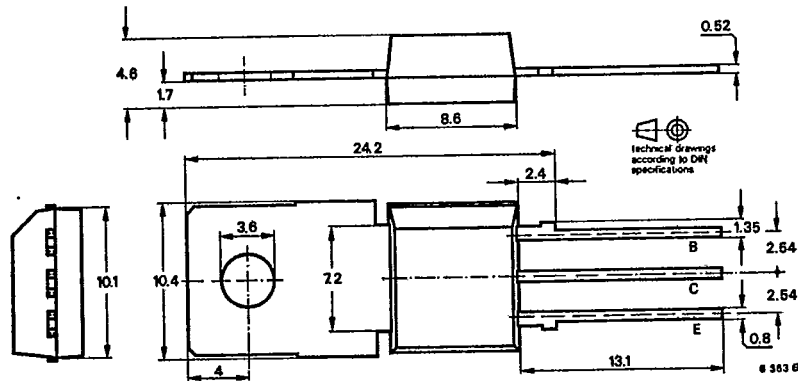
Silicon NPN Epitaxial Planar RF Transistor

Applications: Video B-class power stages in TV receivers

Features:

- High reverse voltage
- No h_{FE} -drift dependent of temperature

Dimensions in mm



Standard plastic case
34 A 3 DIN 41 869
JEDEC TO 202
Weight max. 1.8 g

Collector connected with metallic surface

Absolute maximum ratings

Collector-base voltage	V_{CBO}	300	V
Collector-emitter voltage	V_{CER}	300	V
$R_{BE} \leq 2.7 \text{ k}\Omega$	V_{EBO}	5	V
Emitter-base voltage	I_C	50	mA
Collector current	I_{CM}	300	mA
Collector peak current	P_{tot}	7	W
Total power dissipation	T_J	150	°C
$T_{case} \leq 25 \text{ °C}$	T_{stg}	-65 ... +150	°C
Junction temperature			
Storage temperature range			

Maximum thermal resistances

Junction ambient	R_{thJA}	78	K/W
Junction case	R_{thJC}	17.8	K/W

T1.2/821.0888 E

BF 885 S

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Characteristics

Min. Typ. Max.

 $T_{amb} = 25^{\circ}C$, unless otherwise specified

Collector cut-off current

 $V_{CE} = 250 V, R_{BE} = 2.7 k\Omega$ $V_{CE} = 200 V, R_{BE} = 2.7 k\Omega, T_J = 150^{\circ}C$ I_{CER} I_{CER}

50

nA

10

 μA

Emitter cut-off current

 $V_{EB} = 5 V$ I_{EBO}

10

 μA

Collector-emitter breakdown voltage

 $I_C = 1 \mu A, R_{BE} = 2.7 k\Omega$ $V_{(BR)CER}$

300

V

DC forward current transfer ratio

 $V_{CE} = 20 V, I_C = 25 mA$ h_{FE}

50

Gain bandwidth product

 $V_{CE} = 10 V, I_C = 10 mA$ f_T

60

90

MHz

Feedback capacitance

 $V_{CE} = 30 V, I_C = 1 mA, f = 1 MHz$ C_{12e}

1.2

1.8

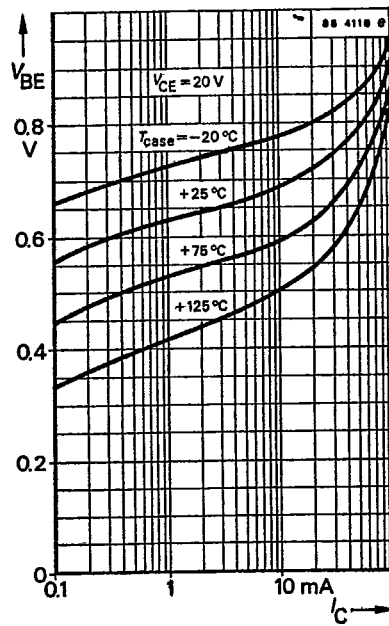
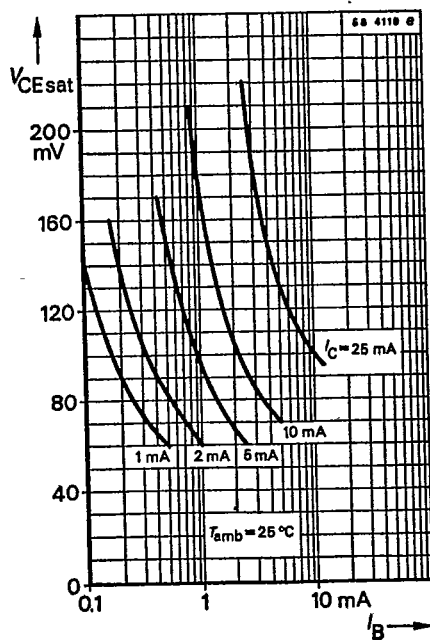
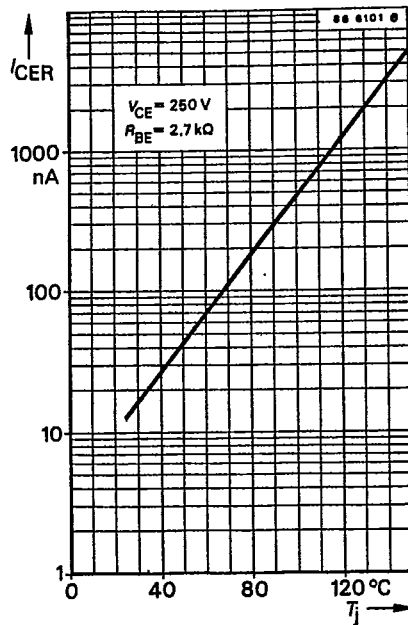
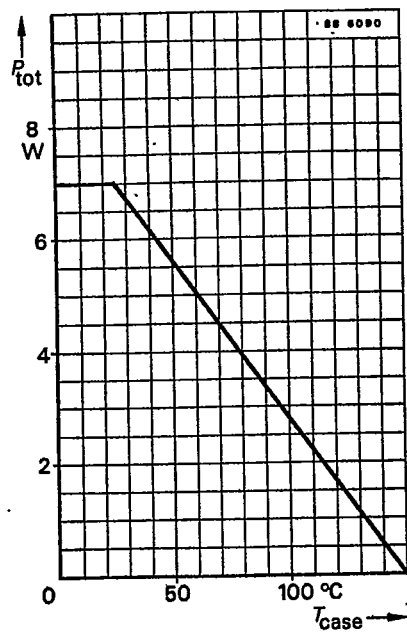
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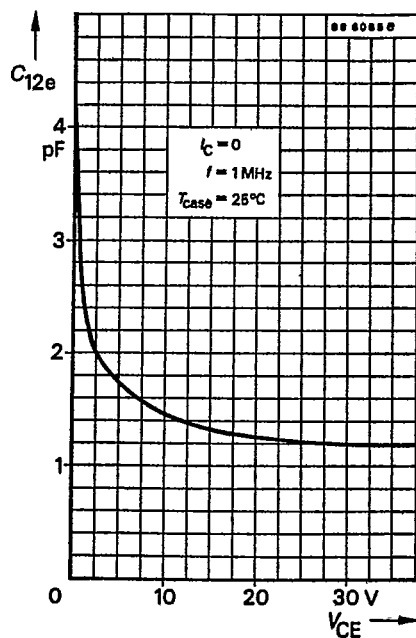
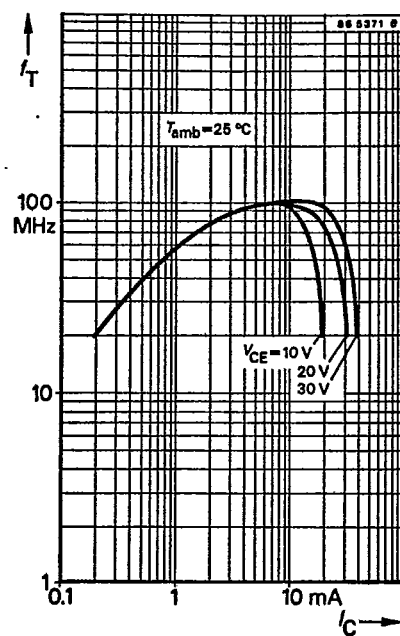
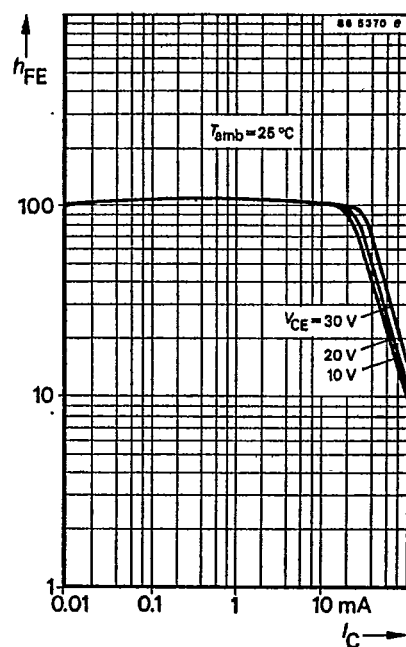
Collector saturation RF voltage

 $I_C = 25 mA, T_J = 150^{\circ}C$ $V_{CEsat HF}$

20

V





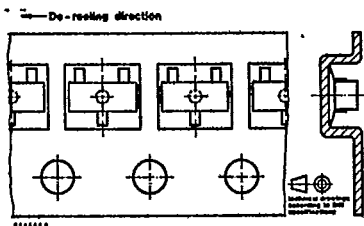


Fig. 7.4 Standard taped SOT 23

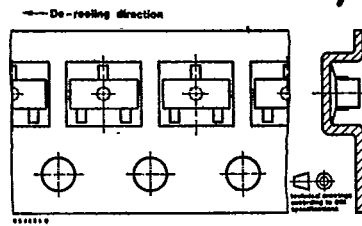


Fig. 7.6 Reverse taped SOT 23

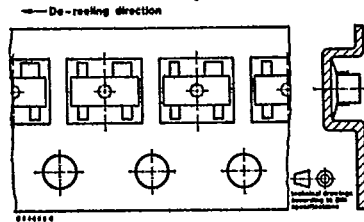


Fig. 7.5 Standard taped SOT 143

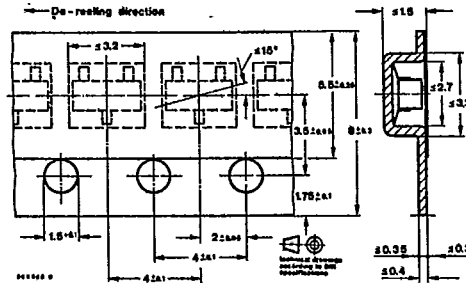


Fig. 7.7 Dimensions of tape in mm

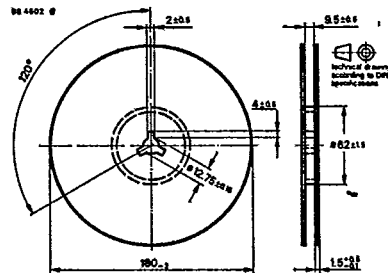


Fig. 7.8 Dimensions of reel in mm

8. Assessories

Number	Fig.	Designation	For case
119 880	8.1.	Isolating washer thickness 60 µm	12 A 3 DIN 41 869 JEDEC TO 126 (SOT 32)
564 542	8.2.	Isolating washer thickness 50 µm	14 A 3 DIN 41 869 JEDEC TO 220 (SOT 78)
912 884	8.3	Isolating washer thickness 50 µm	15 A 3 DIN 41 869 (TOP3) for clip mounting
191 131	8.4	Isolating washer thickness 50 µm	15 A 3 DIN 41 869 (TOP3) for screw mounting
191 140	8.5	Mounting clip	15 A 3 DIN 41 869 (TOP3)
569 524	8.6	Isolating washer thickness 100 µm + 50 µm	3B 2 DIN 41 872 JEDEC TO 3 Devices with high reverse voltage