

T-33-05

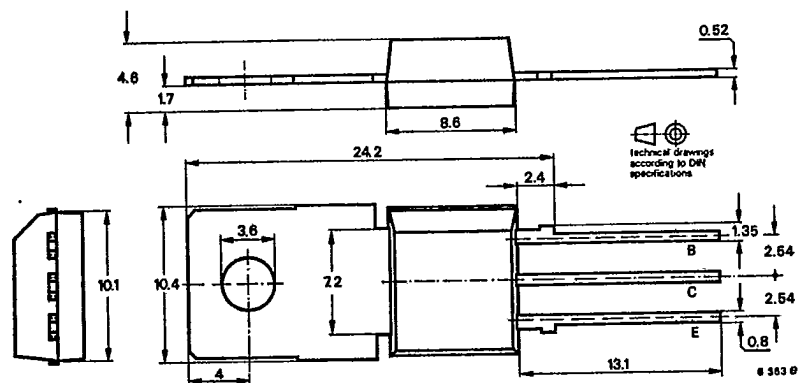
Silicon NPN Epitaxial Planar RF Transistor

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

Maximum thermal resistances

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

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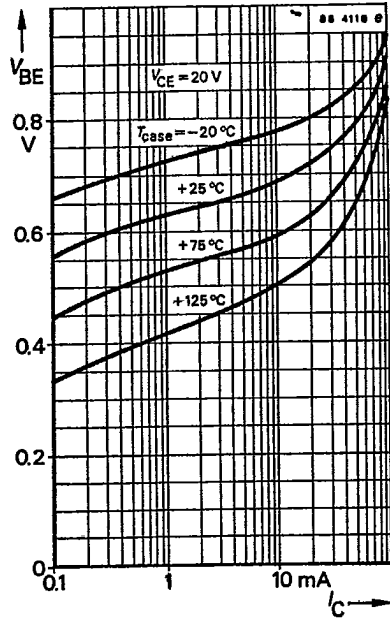
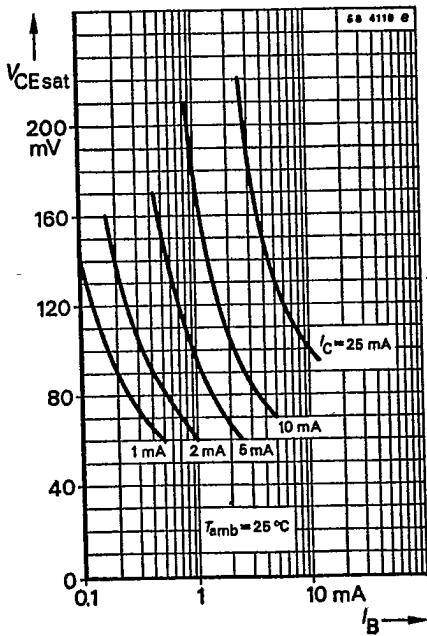
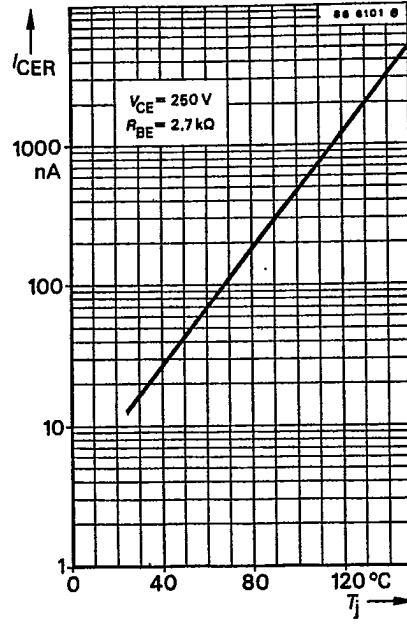
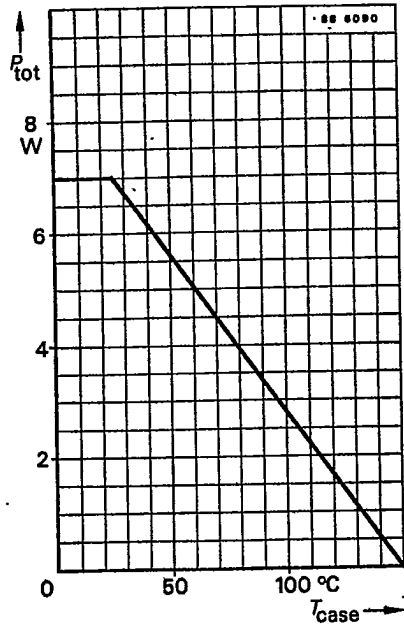
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Characteristics		Min.	Typ.	Max.
$T_{amb} = 25^\circ\text{C}$, unless otherwise specified				
Collector cut-off current				
$V_{CE} = 250\text{ V}$, $R_{BE} = 2.7\text{ k}\Omega$	I_{CER}			50 nA
$V_{CE} = 200\text{ V}$, $R_{BE} = 2.7\text{ k}\Omega$, $T_j = 150^\circ\text{C}$	I_{CER}			10 μA
Emitter cut-off current				
$V_{EB} = 5\text{ V}$	I_{EBO}			10 μA
Collector-emitter breakdown voltage				
$I_C = 1\text{ }\mu\text{A}$, $R_{BE} = 2.7\text{ k}\Omega$	$V_{(BR)CER}$	300		V
DC forward current transfer ratio				
$V_{CE} = 20\text{ V}$, $I_C = 25\text{ mA}$	h_{FE}		50	
Gain bandwidth product				
$V_{CE} = 10\text{ V}$, $I_C = 10\text{ mA}$	f_T	60	90	MHz
Feedback capacitance				
$V_{CE} = 30\text{ V}$, $I_C = 1\text{ mA}$, $f = 1\text{ MHz}$	$C_{12\phi}$		1.2	1.8 pF
Collector saturation RF voltage				
$I_C = 25\text{ mA}$, $T_j = 150^\circ\text{C}$	$V_{CEsatHF}$		20	V

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