

Silicon NPN Transistor

BF240

40V / 25mA

DATASHEET

OEM – Telefunken

Source: Telefunken Databook 1972/73

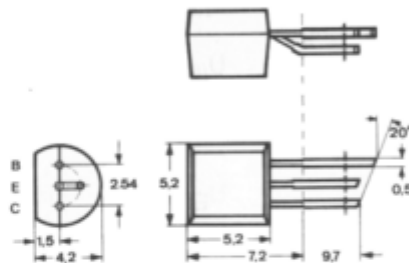
BF 240**Silizium-NPN-Epitaxial-Planar-HF-Transistor für geregelte AM- und FM-Stufen in Emitterschaltung.**

Silicon NPN epitaxial planar RF transistor for controlled AM and FM stages in common emitter configuration.

Abmessungen · Dimensions

Maße in mm

M 2:1



Kunststoffgehäuse
 ≈ TO 92
 Gewicht · Weight
 max. 0,2 g

Absolute Grenzdaten · Absolute maximum ratings

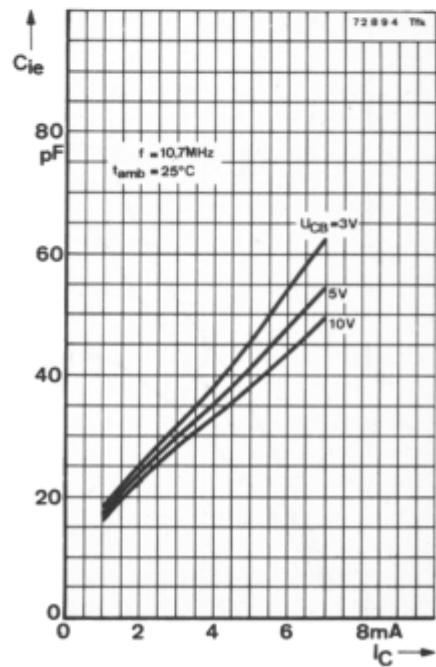
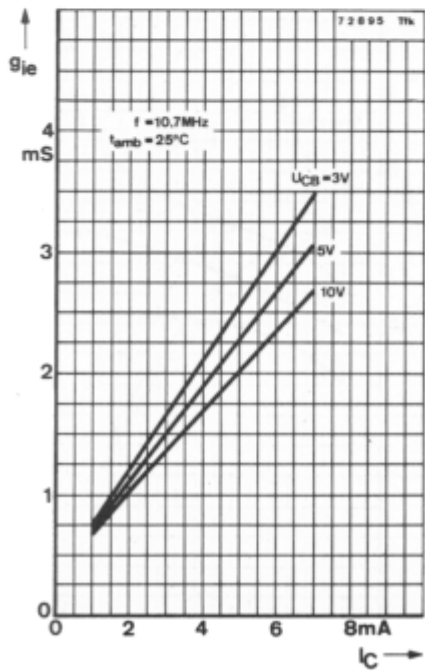
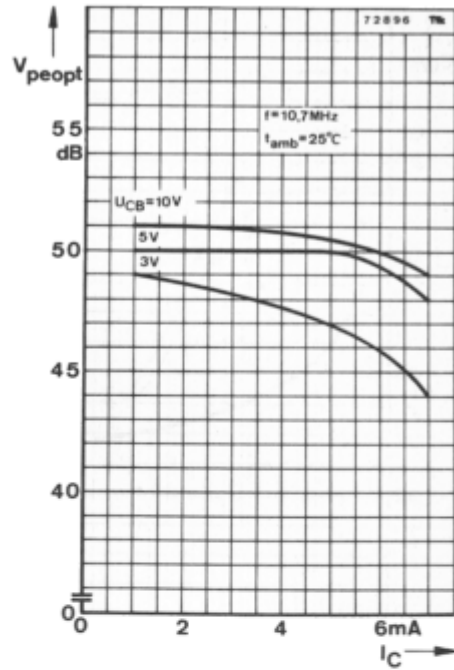
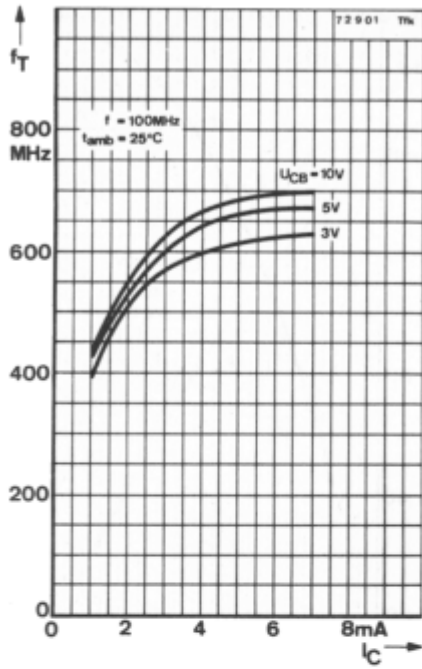
Kollektor-Basis-Sperrspannung	U_{CB0}	40	V
Kollektor-Emitter-Sperrspannung	U_{CE0}	40	V
Emitter-Basis-Sperrspannung	U_{EB0}	4	V
Kollektorstrom	I_C	25	mA
Basisstrom	I_B	2	mA
Gesamtverlustleistung			
$t_{amb} \leq 45^\circ C$	P_{tot}	300	mW
Sperrschichttemperatur	t_j	150	$^\circ C$
Lagerungstemperatur	t_{stg}	-55...+150	$^\circ C$

BF 240

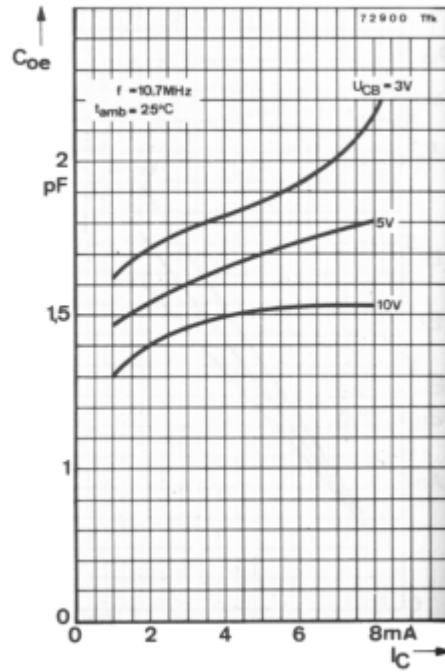
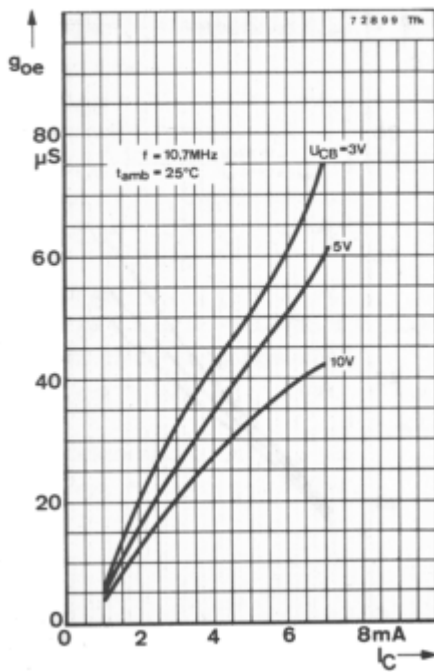
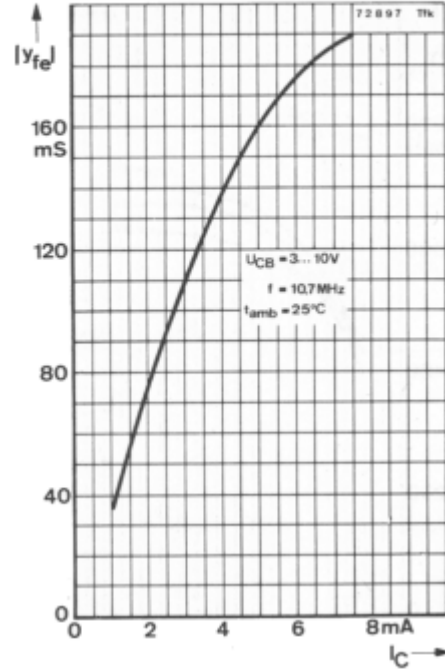
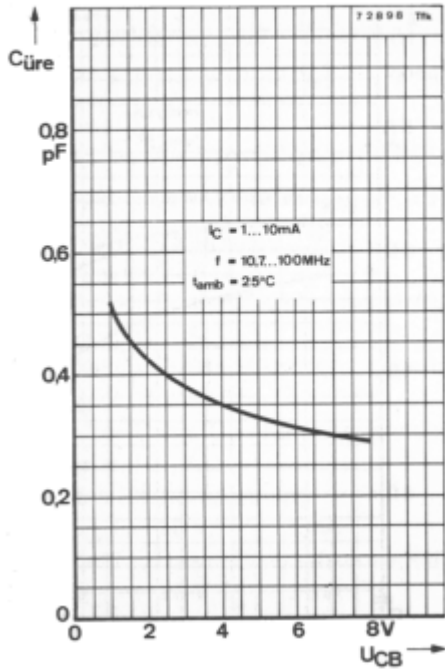
		Min.	Typ.	Max.	
Wärmewiderstand · Thermal resistance					
Sperrschicht-Umgebung	R_{thJA}			350	°C/W
Statische Kenngrößen · DC characteristics					
Umgebungstemperatur $t_{amb} = 25^\circ C$					
Kollektorreststrom				100	nA
$U_{CB} = 20 V$	I_{CBO}				
Kollektor-Basis-Durchbruchspannung		40			V
$I_C = 10 \mu A$	$U_{(BR)CBO}$				
Kollektor-Emitter-Durchbruchspannung		40			V
$I_C = 2 mA$	$U_{(BR)CEO}^{1)}$				
Emitter-Basis-Durchbruchspannung		4			V
$I_E = 10 \mu A$	$U_{(BR)EBO}$				
Basis-Emitterspannung		650	700	740	mV
$U_{CE} = 10 V, I_C = 1 mA$	U_{BE}				
Kollektor-Basis-Gleichstromverhältnis		67		220	
$U_{CE} = 10 V, I_C = 1 mA$	h_{FE}				
Dynamische Kenngrößen · AC characteristics					
Umgebungstemperatur $t_{amb} = 25^\circ C$					
Transitfrequenz		430			MHz
$U_{CB} = 10 V, I_C = 1 mA, f = 100 MHz$	f_T				
Rückwirkungskapazität		0,27	0,34		pF
$U_{CB} = 10 V, I_C = 1 mA, f = 0,47 MHz$	$C_{üre}$				
Rauschmaß, Emitterschaltung		1,5	3,5		dB
$U_{CB} = 10 V, I_C = 1 mA, G_G = 5 mS,$ $f = 200 kHz$	F				
$U_{CB} = 10 V, I_C = 1 mA,$ $Y_G = 6,6 mS - j 3,3 mS, f = 100 MHz$	F		1,6		dB
Kurzschluß-Ausgangsleitwert				8,3	μS
$U_{CB} = 10 V, I_C = 1 mA, f = 0,47 MHz$	g_{oe}				
$f = 10,7 MHz$	g_{oe}			10,5	μS
Kollektorstrom für $ y_{fe} $ max.		10			mA
$U_{CB} = 10 V, f = 36 MHz$	I_C				

1) $\frac{t_p}{T} = 0,01, t_p = 0,3 ms$

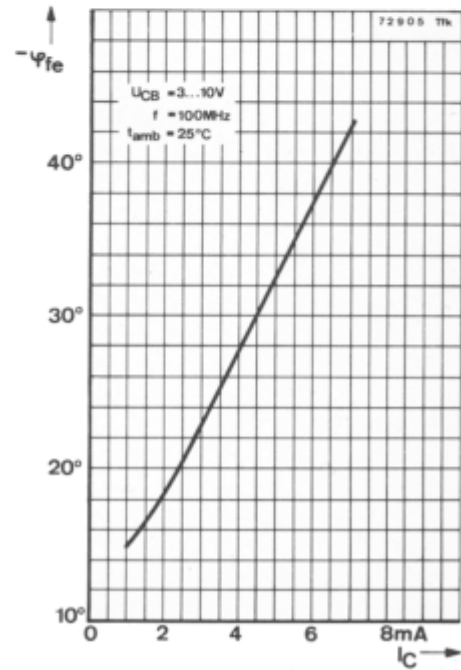
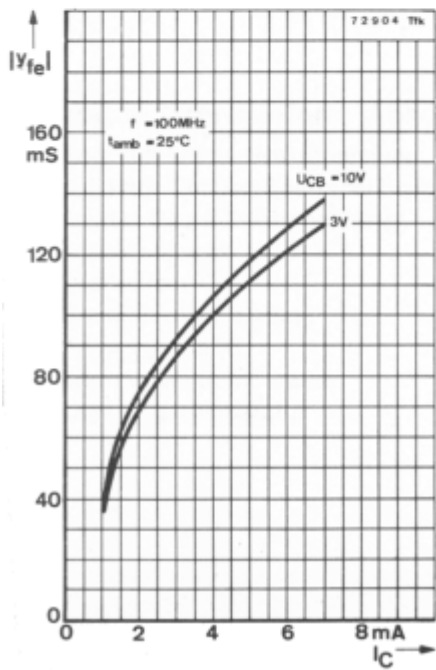
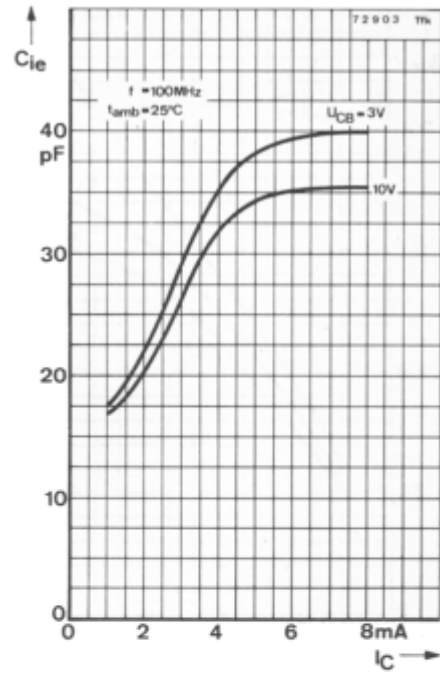
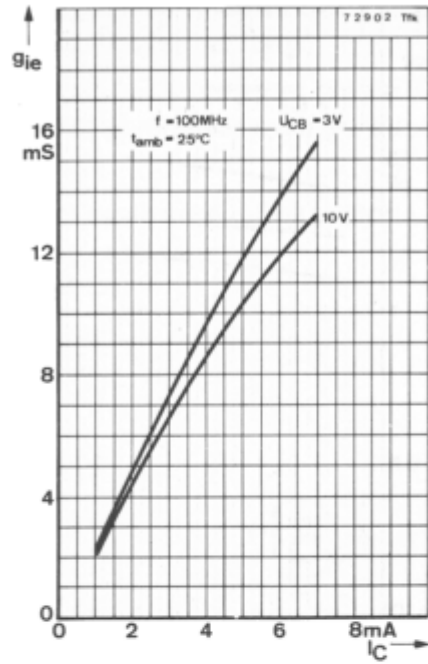
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