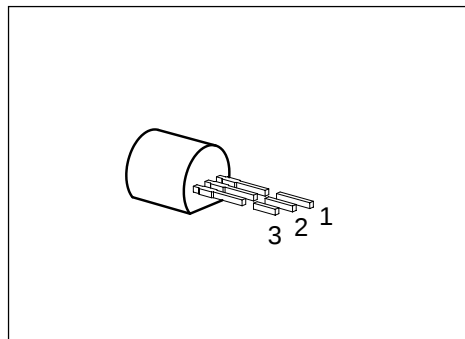


PNP Silicon Transistors with High Reverse Voltage

BFP 23
BFP 26

- High breakdown voltage
- Low collector-emitter saturation voltage
- Low capacitance
- Complementary types: BFP 22, BFP 25 (NPN)



Type	Marking	Ordering Code (tape and reel)	Pin Configuration			Package ¹⁾
			1	2	3	
BFP 23 BFP 26	—	Q62702-F622 Q62702-F722	E	B	C	TO-92

Maximum Ratings

Parameter	Symbol	Values		Unit
		BFP 23	BFP 26	
Collector-emitter voltage	V_{CE0}	200	300	V
Collector-base voltage	V_{CB0}	200	300	
Emitter-base voltage	V_{EB0}	6		
Collector current	I_C	200		mA
Peak collector current	I_{CM}	500		
Base current	I_B	100		
Peak base current	I_{BM}	200		
Total power dissipation, $T_C = 66\text{ }^{\circ}\text{C}$	P_{tot}	625		mW
Junction temperature	T_j	150		$^{\circ}\text{C}$
Storage temperature range	T_{stg}	− 65 ... + 150		

Thermal Resistance

Junction - ambient	$R_{th JA}$	≤ 200	K/W
Junction - case ²⁾	$R_{th JC}$	≤ 135	

¹⁾ For detailed information see chapter Package Outlines.

²⁾ Mounted on Al heat sink 15 mm × 25 mm × 0.5 mm.

Electrical Characteristics

at $T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	

DC characteristics

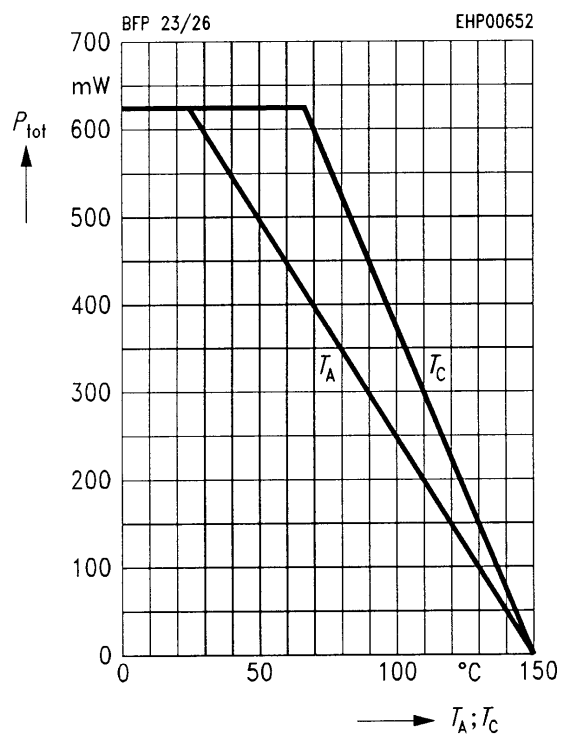
Collector-emitter breakdown voltage $I_C = 1\text{ mA}$	BFP 23 BFP 26	$V_{(BR)CE0}$	200 300	— —	— —	V
Collector-base breakdown voltage $I_C = 100\text{ }\mu\text{A}$	BFP 23 BFP 26	$V_{(BR)CB0}$	200 300	— —	— —	
Emitter-base breakdown voltage $I_E = 100\text{ }\mu\text{A}$		$V_{(BR)EB0}$	6	—	—	
Collector-base cutoff current $V_{CB} = 160\text{ V}$	BFP 23	I_{CB0}	—	—	100	nA
$V_{CB} = 250\text{ V}$	BFP 26		—	—	100	nA
$V_{CB} = 160\text{ V}, T_A = 150\text{ }^{\circ}\text{C}$	BFP 23		—	—	20	μA
$V_{CB} = 250\text{ V}, T_A = 150\text{ }^{\circ}\text{C}$	BFP 26		—	—	20	μA
Emitter-base cutoff current $V_{EB} = 3\text{ V}$		I_{EB0}	—	—	100	nA
DC current gain $I_C = 1\text{ mA}, V_{CE} = 10\text{ V}$		h_{FE}	25	—	—	—
$I_C = 10\text{ mA}, V_{CE} = 10\text{ V}^{1)}$			40	—	—	
$I_C = 30\text{ mA}, V_{CE} = 10\text{ V}^{1)}$	BFP 23		30	—	—	
	BFP 26		25	—	—	
Collector-emitter saturation voltage ¹⁾ $I_C = 20\text{ mA}, I_B = 2\text{ mA}$	BFP 23 BFP 26	V_{CEsat}	— —	— —	0.4 0.5	V
Base-emitter saturation voltage ¹⁾ $I_C = 20\text{ A}, I_B = 2\text{ mA}$		V_{BEsat}	—	—	0.9	

AC characteristics

Transition frequency $I_C = 20\text{ mA}, V_{CE} = 10\text{ V}, f = 20\text{ MHz}$	f_T	—	70	—	MHz
Output capacitance $V_{CB} = 30\text{ V}, f = 1\text{ MHz}$	C_{obo}	—	1.5	—	pF

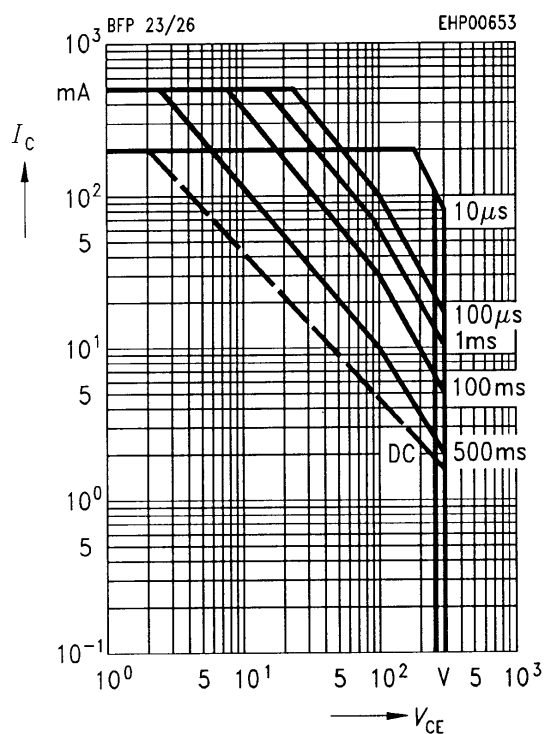
¹⁾ Pulse test conditions: $t \leq 300\text{ }\mu\text{s}$, $D \leq 2\text{ }\%$.

Total power dissipation $P_{\text{tot}} = f(T_A; T_C)$

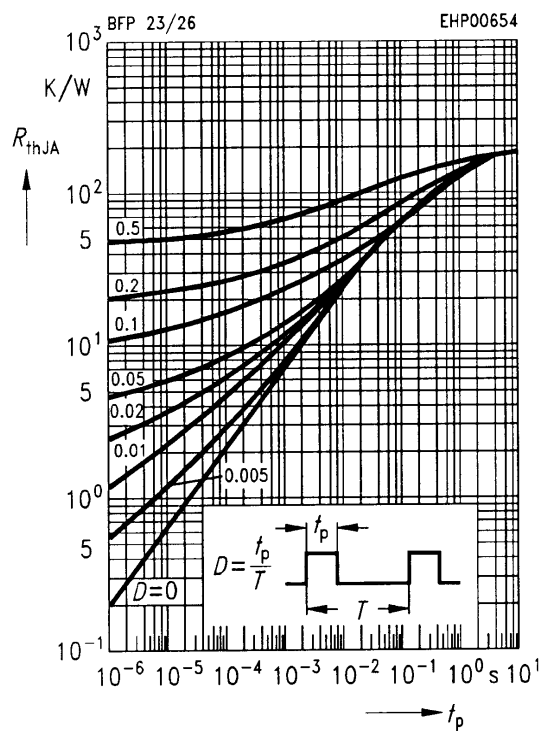


Operating range $I_C = f(V_{CE})$

$D = 0, T_A = 25^\circ\text{C}$

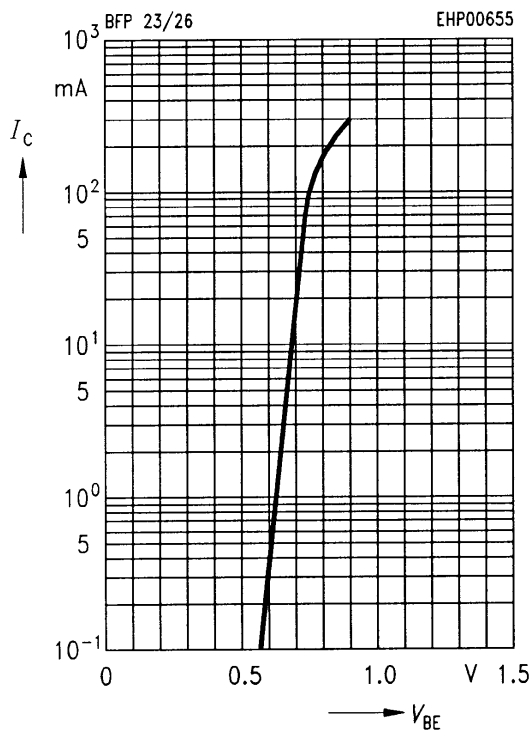


Permissible pulse load $R_{\text{thJA}} = f(t_p)$



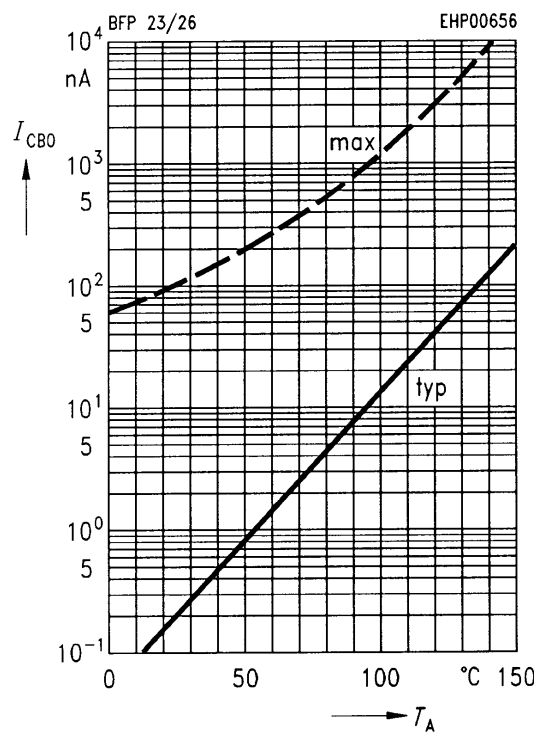
Collector current $I_C = f(V_{BE})$

$V_{CE} = 10\text{ V}, T_A = 25^\circ\text{C}$



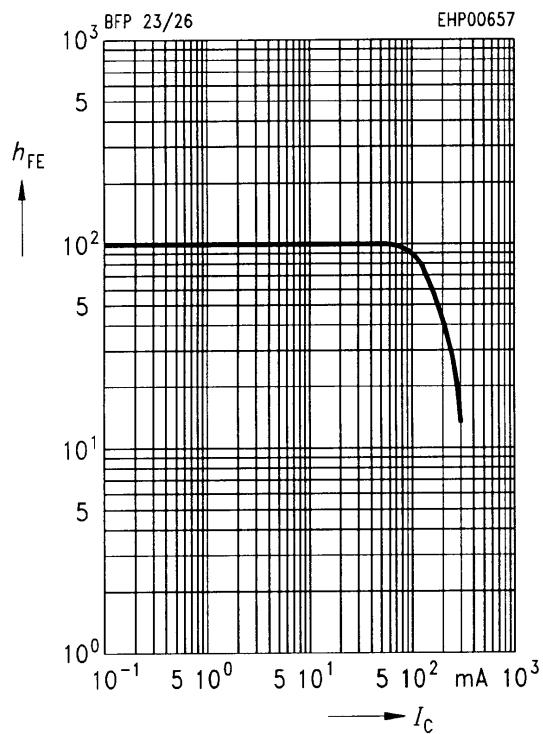
Collector cutoff current $I_{CB0} = f(T_A)$

$V_{CB} = 160 \text{ V}, 250 \text{ V}$



DC current gain $h_{FE} = f(I_C)$

$V_{CE} = 10 \text{ V}, T_A = 25 \text{ °C}$



Transition frequency $f_T = f(I_C)$

$V_{CE} = 10 \text{ V}, f = 20 \text{ MHz}$

