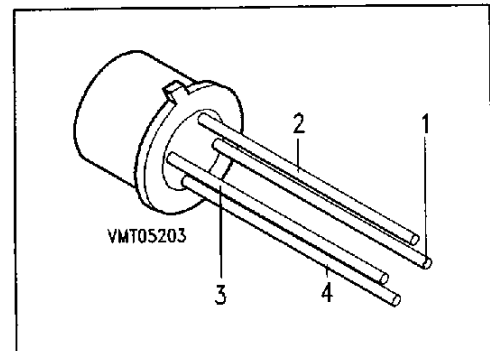


NPN Silicon RF Transistor

BFX 60

- For broadband amplifiers at collector currents up to 15 mA.



ESD: Electrostatic discharge sensitive device, observe handling precautions!

Type	Marking	Ordering Code	Pin Configuration				Package ¹⁾
			1	2	3	4	
BFX 60	BFX 60	Q60206-X60	E	B	Case	C	TO-72

Maximum Ratings

Parameter	Symbol	Values	Unit
Collector-emitter voltage	V_{CE0}	25	V
Collector-base voltage	V_{CB0}	40	
Emitter-base voltage	V_{EB0}	4	
Collector current	I_C	25	mA
Total power dissipation, $T_A \leq 70 \text{ }^\circ\text{C}$	P_{tot}	370	mW
Junction temperature	T_j	200	$^\circ\text{C}$
Ambient temperature range	T_A	- 65 ... + 175	
Storage temperature range	T_{stg}	- 65 ... + 175	

Thermal Resistance

Junction - ambient	$R_{th JA}$	≤ 650	K/W
Junction - case	$R_{th JC}$	≤ 350	

1) For detailed information see chapter Package Outlines.

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	

DC Characteristics

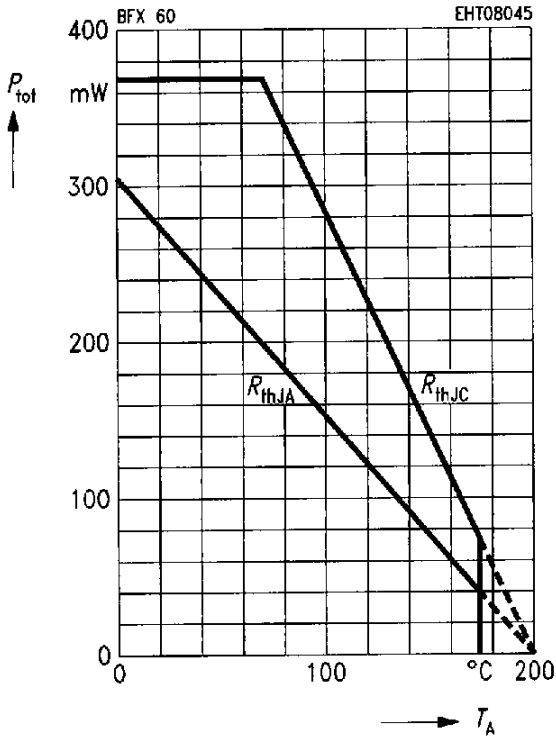
Collector-emitter breakdown voltage $I_C = 2\text{ mA}, I_B = 0$	$V_{(BR)CE0}$	25	–	–	V
Collector-emitter cutoff current $V_{CE} = 40\text{ V}, V_{BE} = 0$	I_{CES}	–	–	100	nA
Emitter-base cutoff current $V_{EB} = 4\text{ V}, I_C = 0$	I_{EBO}	–	–	1	μA
DC current gain $I_C = 7\text{ mA}, V_{CE} = 10\text{ V}$	h_{FE}	50	100	–	–
Base-emitter voltage $I_C = 7\text{ mA}, V_{CE} = 10\text{ V}$	V_{BE}	–	0.74	0.9	V

AC Characteristics

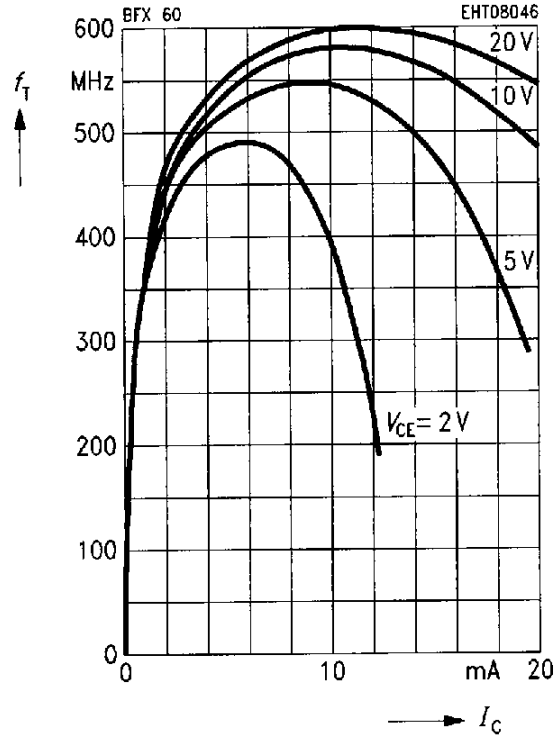
Transition frequency $I_C = 5\text{ mA}, V_{CE} = 10\text{ V}, f = 100\text{ MHz}$	f_T	400	550	–	MHz
Collector-base capacitance $V_{CB} = 10\text{ V}, V_{BE} = v_{be} = 0, f = 1\text{ MHz}$	C_{cb}	–	0.26	0.3	pF
Noise figure $I_C = 2\text{ mA}, V_{CE} = 10\text{ V}, f = 200\text{ MHz}, Z_s = 60\ \Omega$	F	–	5	–	dB


 8235605 0067475 812
 

Total power dissipation $P_{tot} = f(T_A)$



**Transition frequency $f_T = f(I_C)$
 $f = 100\text{ MHz}$**



**Collector-base capacitance $C_{cb} = f(V_{CB})$
 $V_{BE} = v_{be} = 0, f = 1\text{ MHz}$**

