



NPN SILICON PLANAR EPITAXIAL RF TRANSISTOR

MICRO ELECTRONICS

BF199 is an NPN silicon planar epitaxial transistor designed for RF amplifiers and video IF amplifiers in common emitter configuration.

CASE T0-92E



CBE

ABSOLUTE MAXIMUM RATINGS

Collector-Base Voltage	V _{CB0}	40V
Collector-Emitter Voltage	V _{CE0}	25V
Emitter-Base Voltage	V _{EB0}	4V
Collector Current	I _C	25mA
Base Current	I _B	2mA
Total Power Dissipation @ T _A ≤ 45°C	P _{tot}	300mW
Operating Junction & Storage Temperature	T _j , T _{stg}	-55 to +150°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BV _{CB0}	40			V	I _C =10μA I _E =0
Collector-Emitter Breakdown Voltage	LV _{CE0}	25			V	I _C =2mA I _B =0
Emitter-Base Breakdown Voltage	BV _{EB0}	4			V	I _E =10μA I _C =0
Collector Cutoff Current	I _{CB0}			100	nA	V _{CB} =20V I _E =0
Base-Emitter Voltage	V _{BE}		0.78	0.9	V	V _{CE} =10V I _C =7mA
D.C. Current Gain	H _{FE}	38	85			V _{CE} =10V I _C =7mA
Current Gain-Bandwidth Product	f _T		700		MHz	V _{CB} =10V I _C =5mA f=100MHz
Feedback Capacitance	C _{re}		0.32		pF	V _{CB} =10V I _C =1mA f=0.47MHz

TWO PORT CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT	TEST CONDITIONS
Input Conductance	g _{ie}	5	mS	V _{CE} =10V I _C =7mA f=35MHz
Input Capacitance	C _{ie}	45	pF	
Reverse Transfer Admittance	y _{re}	65	μS	
Phase Angle of Transfer Admittance	-∠y _{re}	95	°	
Transfer Admittance	y _{fe}	175	mS	
Phase Angle of Transfer Admittance	-∠y _{fe}	25	°	
Output Conductance	g _{oe}	75	μS	
Output Capacitance	C _{oe}	1.6	pF	

MICRO ELECTRONICS LTD.

38 HUNG TO ROAD, KWUN TONG, HONG KONG. TELEX 43510
 KWUN TONG P. O. BOX 69477 CABLE ADDRESS "MICROTRON"
 TELEPHONE:- 3-430181-6, 3-893363, 3-892423, 3-898221
 FAX: 3-410321