



**MICRO ELECTRONICS**

CASE T0-92E

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



ABSOLUTE MAXIMUM RATINGS

Collector-Base Voltage	VCBO	40V
Collector-Emitter Voltage	VCEO	25V
Emitter-Base Voltage	VEBO	4V
Collector Current	IC	25mA
Base Current	IB	2mA
Total Power Dissipation @ TA ≤ 45°C	Ptot	300mW
Operating Junction & Storage Temperature	Tj, Tstg	-55 to +150°C

ELECTRICAL CHARACTERISTICS (TA=25°C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BVCBO	40			V	IC=10µA IE=0
Collector-Emitter Breakdown Voltage	LVCEO	25			V	IC=2mA IB=0
Emitter-Base Breakdown Voltage	BVEBO	4			V	IE=10µA IC=0
Collector Cutoff Current	ICBO			100	nA	VCB=20V IE=0
Base-Emitter Voltage	VBE		0.78	0.9	V	VCE=10V IC=7mA
D.C. Current Gain	HFE	38	85			VCE=10V IC=7mA
Current Gain-Bandwidth Product	fT		700		MHz	VCB=10V IC=5mA f=100MHz
Feedback Capacitance	Cre		0.32		pF	VCB=10V IC=1mA f=0.47MHz

TWO PORT CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT	TEST CONDITIONS
Input Conductance	gie	5	mS	VCE=10V IC=7mA f=35MHz
Input Capacitance	Cie	45	pF	
Reverse Transfer Admittance	yre	65	µS	
Phase Angle of Transfer Admittance	-φre	95	°	
Transfer Admittance	yfe	175	mS	
Phase Angle of Transfer Admittance	-φfe	25	°	
Output Conductance	goe	75	µS	
Output Capacitance	Coe	1.6	pF	

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