

The BC516(PNP) and BC517(NPN) are complementary silicon planar epitaxial darlington transistors designed for preamplifier input stages requiring high input impedance and high gain.

CASE T0-92F



CEB

ABSOLUTE MAXIMUM RATINGS

Collector-Base Voltage	VCBO	40V
Collector-Emitter Voltage	VCEO	30V
Emitter-Base Voltage	VEBO	10V
Collector Current	IC	400mA
Total Power Dissipation	P _{tot}	625mW
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	BVCBO	40			V	IC=0.01mA IE=0
Collector-Emitter Breakdown Voltage	BVCEO	30			V	IC=2mA IB=0
Emitter-Base Breakdown Voltage	BVEBO	10			V	IE=100nA IC=0
Collector Cutoff Current	ICBO			100	nA	VCB=30V IE=0
Collector-Emitter Saturation Voltage	VCE(SAT)			1	V	IC=100mA IB=0.1mA
Base-Emitter Voltage	VBE			1.4	V	IC=10mA VCE=5V
D.C. Current Gain	HFE	30K				IC=20mA VCE=2V
Output Capacitance	Cob		4.5 3.5		pF pF	VCB=10V f=1MHz
Current Gain-Bandwidth Product	fT		220		MHz	IC=10mA VCE=5V f=20MHz
Average Noise Figure	NF			15	dB	IC=1mA VCE=5V RG=10KΩ BW=15.7kHz f1=10Hz f2=10kHz