



BC 516 BC 517

COMPLEMENTARY
SILICON PLANAR EPITAXIAL DARLINGTON TRANSISTORS

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 TO-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

19 0430B+0650B.4300B+6500B

