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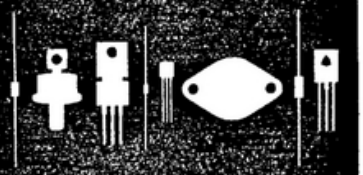

BCY30
BCY31
BCY32
BCY33
BCY34

PNP SILICON TRANSISTORS

JEDEC TO-39 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR BCY30 series types are Silicon PNP Transistors manufactured by the epitaxial planar process for general purpose applications requiring low gain (h_{FE}) and low leakage.

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

	SYMBOL	BCY30	BCY31	BCY32	BCY33	BCY34	UNIT
Collector-Base Voltage	V_{CBO}	64	64	64	32	32	V
Collector-Emitter Voltage	V_{CEV}	64	64	64	32	32	V
Emitter-Base Voltage	V_{EBO}	5.0	5.0	5.0	5.0	5.0	V
Collector Current	I_C			50			mA
Collector Current (Peak)	I_{CM}			100			mA
Base Current	I_B			15			mA
Base Current (Peak)	I_{BM}			50			mA
Power Dissipation	P_D			250			mW
Operating and Storage Junction Temperature	T_J,T_{STG}			-65 to +200			°C
Thermal Resistance	ΘJA			0.7			°C/W

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

		BCY30		BCY31		BCY32		BCY33		BCY34		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	UNIT
I_{CBO}	V_{CB}=6.0V		50		50		50		50		50	nA
I_{EBO}	V_{EB}=5.0V		50		50		50		50		50	nA
I_{EBO}	V_{EB}=6.0V, T_A=100°C		2.5		2.5		2.5		2.5		2.5	μA
BV_{CBO}	I_C=100μA	64		64		64		32		32		V
BV_{CEV}	I_C=100μA, V_{EB}=1.5V	64		64		64		32		32		V
BV_{EBO}	I_E=100μA	5.0		5.0		5.0		5.0		5.0		V
$V_{CE(SAT)}$	I_C=20mA, I_B=3.0mA		0.55		0.55		0.55		0.55		0.55	V
$V_{BE(SAT)}$	I_C=20mA, I_B=3.0mA		1.25		1.25		1.25		1.25		1.25	V
h_{FE}	V_{CE}=4.5V, I_C=20mA	10	35	15	60	20	70	10	35	15	60	
f_T	V_{CE}=6.0V, I_C=1.0mA	1.0		1.0		1.0		1.0		1.0		MHz
C_{ob}	V_{CB}=6.0V, I_E=0, f=1.0MHz		60		60		60		60		60	pF
NF	V_{CE}=2.0V, I_E=0.5mA, R_g=500Ω, f=1.0kHz		20		20		20		20		20	dB