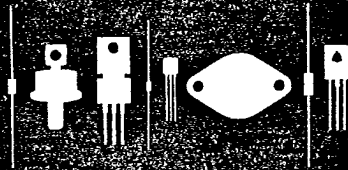


Central
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BCY30
BCY31
BCY32
BCY33
BCY34

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 ($T_A=25^\circ\text{C}$ unless otherwise noted)

	SYMBOL	BCY30	BCY31	BCY32	BCY33	BCY34	UNIT
Collector-Base Voltage	V_{CB0}	64	64	64	32	32	V
Collector-Emitter Voltage	V_{CEV}	64	64	64	32	32	V
Emitter-Base Voltage	V_{EB0}	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			$^\circ\text{C}$
Thermal Resistance	θ_{JA}			0.7			$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	BCY30		BCY31		BCY32		BCY33		BCY34		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
I_{CB0}	$V_{CB}=6.0\text{V}$		50		50		50		50		50	nA
I_{EB0}	$V_{EB}=5.0\text{V}$		50		50		50		50		50	nA
I_{EBO}	$V_{EB}=6.0\text{V}, T_A=100^\circ\text{C}$		2.5		2.5		2.5		2.5		2.5	μA
BV_{CB0}	$I_C=100\mu\text{A}$	64		64		64		32		32		V
BV_{CEV}	$I_C=100\mu\text{A}, V_{EB}=1.5\text{V}$	64		64		64		32		32		V
BV_{EB0}	$I_E=100\mu\text{A}$	5.0		5.0		5.0		5.0		5.0		V
$V_{CE}(\text{SAT})$	$I_C=20\text{mA}, I_B=3.0\text{mA}$		0.55		0.55		0.55		0.55		0.55	V
$V_{BE}(\text{SAT})$	$I_C=20\text{mA}, I_B=3.0\text{mA}$		1.25		1.25		1.25		1.25		1.25	V
h_{FE}	$V_{CE}=4.5\text{V}, I_C=20\text{mA}$	10	35	15	60	20	70	10	35	15	60	
f_T	$V_{CE}=6.0\text{V}, I_C=1.0\text{mA}$	1.0		1.0		1.0		1.0		1.0		MHz
C_{ob}	$V_{CB}=6.0\text{V}, I_E=0,$ $f=1.0\text{MHz}$		60		60		60		60		60	pF
NF	$V_{CE}=2.0\text{V}, I_E=0.5\text{mA},$ $R_g=500\Omega, f=1.0\text{kHz}$		20		20		20		20		20	dB