

BCY30, BCY31, BCY32, BCY33, BCY34
PNP Silicon Transistors JEDEC TO39 Package

BCY30 series types are Silicon PNP Transistors manufactured by the epitaxial planar process for general purpose applications requiring lo gain (HFE) 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_{CBO}	$V_{CB}=6.0\text{V}$		50		50		50		50		50	nA
I_{EBO}	$V_{EB}=5.0\text{V}$		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
$V_{CE(SAT)}$	$I_C=20\text{mA}, I_B=3.0\text{mA}$		0.55		0.55		0.55		0.55		0.55	V
$V_{BE(SAT)}$	$I_C=20\text{mA}, I_B=3.0\text{mA}$		1.25		1.25		1.25		1.25		1.25	V
hFE	$V_{CE}=4.5\text{V}, I_C=20\text{mA}$	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



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