



Bipolar Pro Electron Series

Type No.	Case Style	V _{CE} [*] V _{CB0} (V) Min	V _{BE0} (V) Min	I _{CB0} [*] (nA) Max	V _{CE} [*] V _{CB} (V) Max	HFE h _{FE} @ 1 kHz Min Max	I _C (mA) @ Min Max	V _{CE(SAT)} (V) Max	V _{BE(SAT)} (V) Min Max	C _{ob} (pF) Max	f _T (MHz) @ Min Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BC327	TO-92 (97)	45	5	100*	45	40 100	300 600	0.7	1.2*						67
BC327A	TO-92 (97)	60	5	100*	45	40 100	300 400	0.7	1.2*						67
BC327-10	TO-92 (97)	45	5	100*	45	40 63	300 160	0.7	1.2*						67
BC327-16	TO-92 (97)	45	5	100*	45	40 100	300 250	0.7	1.2*						67
BC327-25	TO-92 (97)	45	5	100*	45	40 160	300 400	0.7	1.2*						67
BC328	TO-92 (97)	25	5	100*	25	40 100	300 600	0.7	1.2						67
BC328-10	TO-92 (97)	25	5	100*	25	40 63	300 160	0.7	1.2						67
BC328-16	TO-92 (97)	25	5	100*	25	40 100	300 250	0.7	1.2						67
BC328-25	TO-92 (97)	25	5	100*	25	40 160	300 400	0.7	1.2						67
BC337	TO-92 (97)	45	5	100	20	100 40	600 100	0.7							12
BC337A	TO-92 (97)	60	5	100	20	100 40	400 500	0.7							12
BC337-16	TO-92 (97)	45	5	100	20	100 40	250 500	0.7							12
BC337-25	TO-92 (97)	45	5	100	20	160 40	400 500	0.7							12

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Type No.	Case Style	V _{CE} [*] V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	I _{CB0} [*] (nA) Max	I _{CB0} [*] (nA) Max	V _{CB} (V)	h _{FE} h _{FE} 1 kHz [*] Min Max	I _C (mA) @ Min Max	V _{CE} (V) 1	V _{CE(SAT)} (V) & Max	V _{BE(SAT)} (V) Min	V _{BE(ON)} [*] (V) Min Max	I _C (mA) @ Min Max	C _{ob} (pF) Max	f _T (MHz) @ Min Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BC338	TO-92 (97)	30*	20	5	100	20	20	100 600 40	100 100 500 1	1	0.7			500						12
BC338-16	TO-92 (97)	30*	20	5	100	20	20	100 250 40	100 100 500 1	1	0.7			500						12
BC338-25	TO-92 (97)	30*	20	5	100	20	20	100 250 40	100 100 500 1	1	0.7			500						12
BC368	TO-92 (94)	25*	20	5	10 μA	25	25	60 85 375 1 60	5 10 500 1 1A 1	10	0.5			1A						37
BC369	TO-92 (94)	25*	20	5	10 μA	25	25	50 85 375 1 60	5 10 500 1 1A 1	10	0.5			1A						77
BC546	TO-92 (97)	80	65	6	15	30	30	110 800 2	2 5	5	0.25			10			10	(Notes 1, 11)		11
BC546A	TO-92 (97)	80	65	6	15	30	30	110	0.01 5	5	0.25			10			10	(Notes 1, 11)		11
BC546B	TO-92 (97)	80	65	6	15	30	30	200 450 2	5 5	5	0.6			100			10	(Notes 1, 11)		11
BC547	TO-92 (97)	50	45	6	10	20	20	125 900 [*] 2	2 5	5	0.25 0.6	0.77 [*] 0.55	0.77 [*] 0.70 [*]	10 100 2	4.5			10	(Notes 1, 11)	10
BC547A	TO-92 (97)	50	45	6	10	20	20	125 260 [*] 2	2 5	5	0.25 0.6	0.77 [*] 0.55	0.77 [*] 0.70 [*]	10 100 2	4.5			10	(Notes 1, 11)	10
BC547B	TO-92 (97)	50	45	6	10	20	20	240 500 [*] 2	2 5	5	0.25 0.6	0.77 [*] 0.55	0.77 [*] 0.70 [*]	10 100 2	4.5			10	(Notes 1, 11)	10
BC547C	TO-92 (97)	50	45	5	15	30	30	420 900 2	2 5	5	0.25 0.6	0.77 [*] 0.55	0.77 [*] 0.70 [*]	10 100 2	4.5			10	(Notes 1, 11)	10

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Bipolar Pro Electron Series (Continued)

Type No.	Case Style	V _{CE} [*]		V _{CE0} (V) Min	V _{EBO} (V) Min	I _{CE} [*]		I _{CBO} (mA) Max	V _{CB} (V) Max	h _{FE} 1 kHz [*]	I _C (mA) @ 1 kHz [*]	V _{CE} (V) Max	V _{BE(SAT)} (V) & V _{BE(ON)} [*]		I _C (mA) @ V _{BE(ON)} [*]	C _{ob} (pF) Max	f _T (MHz) Min	I _C (mA) @ V _{BE(ON)} [*]	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
		Min	Max			Min	Max						Min	Max								
BC548	TO-92 (97)	30	20	20	5	10	20	10	20	125	900*	2	5	0.25 0.6	0.77* 0.55 0.70*	10 100	4.5			10	(Note 1)	10
BC548A	TO-92 (97)	30	20	20	5	10	20	10	20	125	260*	2	5	0.25 0.6	0.77* 0.55 0.70*	10 100	4.5			10	(Note 1)	10
BC548B	TO-92 (97)	30	20	20	5	10	20	10	20	240	500*	2	5	0.25 0.6	0.77* 0.55 0.70*	10 100	4.5			10	(Note 1)	10
BC548C	TO-92 (97)	30	20	20	5	10	20	10	20	450	900*	2	5	0.25 0.6	0.77* 0.55 0.70*	10 100	4.5			10	(Note 1)	10
BC549	TO-92 (97)	30	20	20	5	10	20	10	20	240	900*	2	5	0.25 0.6	0.77* 0.55 0.70*	10 100	4.5			4	(Note 1)	10
BC549B	TO-92 (97)	30	20	20	5	10	20	10	20	240	500*	2	5	0.25 0.6	0.77* 0.55 0.70*	10 100	4.5			4	(Note 1)	10
BC549C	TO-92 (97)	30	20	20	5	10	20	10	20	450	900*	2	5	0.25 0.6	0.77* 0.55 0.70*	10 100	4.5			4	(Note 1)	10
BC550	TO-92 (97)	50	45	45	5	10	45	10	45	240	900*	2	5	0.25 0.6	0.77* 0.55 0.70*	10 100				3	(Note 1)	10
BC550B	TO-92 (97)	50	45	45	5	10	45	10	45	240	500*	2	5	0.25 0.6	0.77* 0.55 0.70*	10 100				3	(Note 1)	10
BC556	TO-92 (97)	80	65	65	5	15	30	15	30	75	475	2	5	0.3 0.65	0.77* 0.55 0.70*	10 100				10	(Note 1)	69

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Type No.	Case Style	V _{CE(S)} V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	I _{CS} [*] I _{CB0} (nA) Max	h _{FE} h _{FE} @ 1 kHz Min Max	I _C (mA) @ V _{CE} (V)	V _{CE(SAT)} (V) & V _{BE(ON)} (V) Max Min	I _C (mA) @ V _{CE(SAT)} & V _{BE(ON)} (V) Max Min	C _{ob} (pF) Max	f _T (MHz) @ I _C (mA) Min Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BC556A	TO-92 (97)	80	65	5	15 30	125 250	2 5	0.3 0.65	10 100				10	(Note 1)	69
BC556B	TO-92 (97)	80	65	5	15 30	220 475	2 5	0.3 0.65	10 100				10	(Note 1)	69
BC557	TO-92 (97)	50	45	5	100 20	75 900*	2 5	0.3 0.65	10 100				10	(Note 1)	68
BC557A	TO-92 (97)	50	45	5	100 20	125 260*	2 5	0.3 0.65	10 100				10	(Note 1)	68
BC557B	TO-92 (97)	50	45	5	100 20	240 500*	2 5	0.3 0.65	10 100				10	(Note 1)	68
BC558	TO-92 (97)	30	25	5	100 20	75 500*	2 5	0.3 0.65	10 100				10	(Note 1)	68
BC558A	TO-92 (97)	30	25	5	100 20	125 260*	2 5	0.3 0.65	10 100				10	(Note 1)	68
BC558B	TO-92 (97)	30	25	5	100 20	240 500*	2 5	0.3 0.65	10 100				10	(Note 1)	68
BC558C	TO-92 (97)	30	25	5	100 20	450 900*	2 5	0.3 0.65	10 100				10	(Note 1)	68
BC559	TO-92 (97)	25	20	5	100 20	125 500*	2 5	0.3 0.65	10 100				4	(Note 1)	68

Bipolar Pro Electron Series (Continued)

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Type No.	Case Style	V _{CE} [*] V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	I _{CEB0} [*] I _{CB0} (mA) Max	H _{FE} h _{FE} @ 1 kHz Min Max	I _C (mA) V _{CE} (V)	V _{CE(SAT)} (V) & V _{BE(ON)} [*] (V) Max Min	I _C (mA) Min Max	C _{ob} (pF) Max	f _T (MHz) Min Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BC559B	TO-92 (97)	25	20	5	100	240	2	0.3 0.65	10 100				4	(Note 1)	68
BC559C	TO-92 (97)	25	20	5	100	450	2	0.3 0.65	10 100				4	(Note 1)	68
BC560	TO-92 (97)	50	45	5	100	125	2	0.3 0.65	10 100				3	(Note 1)	68
BC560B	TO-92 (97)	50	45	5	100	240	2	0.3 0.65	10 100				3	(Note 1)	68
BC635	TO-92 (94)	45	45	5		25	5	0.5	500						38
BC636	TO-92 (94)	45	45	5	100	25	5	0.5	500						78
BC637	TO-92 (94)	60	60	5		25	5	0.5	500						38*
BC638	TO-92 (94)	60	60	5	100	25	5	0.5	500						78
BC639	TO-92 (94)	100	80	5		25	5	0.5	500						39
BC640	TO-92 (94)	100	80	5	100	25	5	0.5	500						79
BC807	TO-236 (49)	50*	45	5	100	100	1	0.7	500						67

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Type No.	Case Style	V _{CE} * V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	I _{CS} * I _{CB0} (nA) Max	H _{FE} h _{FE} @ 1 kHz* Min Max	I _C (mA) V _{CE} (V) 1	V _{CE(SAT)} (V) & V _{BE(SAT)} (V) Max	V _{BE(SAT)} V _{BE(ON)*} (V) Min Max	I _C (mA) Max	C _{ob} (pF) Max	f _T (MHz) Min Max	f _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BC807-16	TO-236 (49)	50*	45	5	100	100 250 40	100 1 500 1	0.7	500							67
BC807-25	TO-236 (49)	50*	45	5	100	160 400 40	100 1 500 1	0.7	500							67
BC807-40	TO-236 (49)	50*	45	5	100	250 600 40	100 1 500 1	0.7	500							67
BC808	TO-236 (49)	30*	25	5	100	100 600 40	100 1 500 1	0.7	500							67
BC808-16	TO-236 (49)	30*	25	5	100	100 250 40	100 1 500 1	0.7	500							67
BC808-25	TO-236 (49)	30*	25	5	100	160 400 40	100 1 500 1	0.7	500							67
BC808-40	TO-236 (49)	30*	25	5	100	250 600 40	100 1 500 1	0.7	500							67
BC817	TO-236 (49)	30*	25	5	100	100 600 40	100 1 500 1	0.7	500							12
BC817-16	TO-236 (49)	30*	25	5	100	100 250 40	100 1 500 1	0.7	500							12
BC817-25	TO-236 (49)	30*	25	5	100	160 400 40	100 1 500 1	0.7	500							12
BC817-40	TO-236 (49)	30*	25	5	100	250 600 40	100 1 500 1	0.7	500							12
BC818	TO-236 (49)	30*	25	5	100	100 600 40	100 1 500 1	0.7	500							12
BC818-16	TO-236 (49)	30*	25	5	100	100 250 40	100 1 500 1	0.7	500							12
BC818-25	TO-236 (49)	30*	25	5	100	160 400 40	100 1 500 1	0.7	500							12

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Type No.	Case Style	V _{CE} [*] V _{CB} (V) Min	V _{CE} [*] V _{CB} (V) Min	V _{EB} [*] V _{CB} (V) Min	I _{CB} [*] I _{CB} (nA) Max	h _{FE} h _{FE} @ 1 kHz [*] Min Max	I _C I _C (mA) Min Max	V _{CE} (SAT) V _{BE} (ON) [*] (V) & Min Max	V _{BE} (SAT) V _{BE} (ON) [*] (V) Min Max	I _C I _C (mA) Min Max	C _{ob} (pF) Max	f _T (MHz) Min Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BC818-40	TO-236 (49)	30*	25	5	100	250 40	600 500	1 1	0.7	500						12
BC846	TO-236 (49)	80	65	6	15	110	0.01 800	5 5	0.25 0.6	10 100				10	(Note 1)	11
BC846-A	TO-236 (49)	80	65	6	15	110	0.01 800	5 5	0.25 0.6	10 100				10	(Note 1)	11
BC846-B	TO-236 (49)	80	65	6	15	200	0.01 450	5 5	0.25 0.6	10 100				10	(Note 1)	11
BC847	TO-236 (49)	50	45	6	15	110	0.01 800	5 5	0.25 0.6	10 100				10	(Note 1)	10
BC847-A	TO-236 (49)	50	45	6	15	110	0.01 800	5 5	0.25 0.6	10 100				10	(Note 1)	10
BC847-B	TO-236 (49)	50	45	6	15	200	0.01 450	5 5	0.25 0.6	10 100				10	(Note 1)	10
BC848	TO-236 (49)	30	30	5	15	110	0.01 800	5 5	0.25 0.6	10 100				10	(Note 1)	10
BC848-A	TO-236 (49)	30	30	5	15	110	0.01 800	5 5	0.25 0.6	10 100				10	(Note 1)	10
BC848-B	TO-236 (49)	30	30	5	15	200	0.01 450	5 5	0.25 0.6	10 100				10	(Note 1)	10
BC848-C	TO-236 (49)	30	30	5	15	420	0.01 800	5 5	0.25 0.6	10 100				10	(Note 1)	10

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Type No.	Case Style	V _{CE} * V _{CB0} (V)		V _{CE0} (V)	V _{EB0} (V)	I _{CE} * I _{CB0} (mA)		HFE h _{FE} @ 1 kHz	I _C (mA)	V _{CE} (V)	V _{BE} (SAT) V _{BE(ON)} * (V)		I _C (mA)	C _{ob} (pF)	f _T (MHz)	t _{off} (ns)	NF (dB) Max	Test Conditions	Process No.
		Min	Max			Min	Max				Min	Max							
BC849	TO-236 (49)	30	30	30	5	15	30	200	0.01	5	0.25	10	10				4	(Note 1)	10
BC849B	TO-236 (49)	30	30	30	5	15	30	200	0.01	5	0.25	10	100				4	(Note 1)	10
BC849C	TO-236 (49)	30	30	30	5	15	30	420	0.01	5	0.25	10	100				4	(Note 1)	10
BC850	TO-236 (49)	50	45	45	5	15	30	200	0.01	5	0.25	10	100				3	(Note 1)	10
BC850-B	TO-236 (49)	50	45	45	5	15	30	200	0.01	5	0.25	10	100					(Note 1)	10
BC856	TO-236 (49)	80	65	65	5	15	30	75	2	5	0.3	10	100				10	(Note 1)	69
BC856-A	TO-236 (49)	80	65	65	5	15	30	125	2	5	0.3	10	100				10	(Note 1)	69
BC856-B	TO-236 (49)	80	65	65	5	15	30	220	2	5	0.3	10	100				10	(Note 1)	69
BC857	TO-236 (49)	50	45	45	5	15	30	75	2	5	0.3	10	100				10	(Note 1)	68
BC857-A	TO-236 (49)	50	45	45	5	15	30	125	2	5	0.3	10	100				10	(Note 1)	68

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Type No.	Case Style	V _{CE0} [*] V _{CB0} (V) Min	V _{BE0} (V) Min	V _{CE0} [*] V _{CB0} (V) Max	V _{CE0} [*] V _{CB0} (V) Min	V _{CE0} [*] V _{CB0} (V) Max	I _{CB0} [*] (nA) Max	I _{CE0} [*] (mA) Max	H _{FE} h _{FE} 1 kHz [*] Min Max	I _C (mA) 2 5	V _{CE} (V) 5	V _{CE(SAT)} (V) & V _{BE(ON)} [*] (V) Min Max	V _{BE(SAT)} (V) Min Max	I _C (mA) Min Max	C _{ob} (pF) Max	f _T (MHz) Min Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BC857-B	TO-236 (49)	50	45	5	30	30	15	30	220 475	2 5	5	0.3	0.3	10				10	(Note 1)	68
BC858	TO-236 (49)	30	30	5	30	30	15	30	75 800	2 5	5	0.3	0.65	10				10	(Note 1)	68
BC858-B	TO-236 (49)	30	30	5	30	30	15	30	220 475	2 5	5	0.3	0.65	10				10	(Note 1)	68
BC858-C	TO-236 (49)	30	30	5	30	30	15	30	420 800	2 5	5	0.3	0.65	10				10	(Note 1)	68
BC859	TO-236 (49)	30	30	5	30	30	15	30	220 800	2 5	5	0.65	0.65	100				4	(Note 1)	68
BC859-A	TO-236 (49)	30	30	5	30	30	15	30	125 250	2 5	5	0.65	0.65	100				4	(Note 1)	68
BC859-B	TO-236 (49)	30	30	5	30	30	15	30	220 475	2 5	5	0.65	0.65	100				4	(Note 1)	68
BC859-C	TO-236 (49)	30	30	5	30	30	15	30	420 800	2 5	5	0.65	0.65	100				4	(Note 1)	68
BC860	TO-236 (49)	50	45	5	30	45	15	30	220 800	2 5	5	0.3	0.65	10				3	(Note 1)	68
BC860-B	TO-236 (49)	50	45	5	30	45	15	30	220 475	2 5	5	0.3	0.65	10				3	(Note 1)	68
BCF29	TO-236 (49)	32	32	5	32	32	100	32	120 260	0.01 2	5 5	0.3	0.3	10				4	(Note 1)	68
BCF30	TO-236 (49)	32	32	5	32	32	100	32	200 450	0.01 2	5 5	0.25	0.25	10				4	(Note 1)	68
BCF32	TO-236 (49)	50	45	5	20	45	100	20	215 500	0.01 2	5 5	0.3	0.3	10				4	(Note 1)	10

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Type No.	Case Style	V _{CE} [*] V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	I _{CE} [*] I _{CB0} (mA) Max	V _{CB} (V)	H _{FE} h _{FE} @ 1 kHz Min Max	I _C (mA) Min Max	V _{CE} (V) Min Max	V _{CE(SAT)} (V) & V _{BE(ON)} (V) Max	V _{BE(SAT)} (V) Min Max	I _C (mA) Min Max	C _{ob} (pF) Max	f _T (MHz) Min Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BCF33	TO-236 (49)	50	45	5	100	20	200	0.01 5	5	0.3		10				4	(Note 1)	10
BCF70	TO-236 (49)	50	45	5	100	20	215	0.01 5	5	0.3		10				4	(Note 1)	10
BCV26	TO-236 (49)	40	30	10	100	30	4,000	1 5	5	1.0	1.5	100						61
BCV27	TO-236 (49)	40	30	10	100	30	4,000	1 5	5	1.0	1.5	100						05
BCV71	TO-236 (49)	80	60	5	100	20	110	220 2	5	0.25		10				10	(Note 1)	11
BCV72	TO-236 (49)	80	60	5	100	20	200	450 2	5	0.25		10				10	(Note 1)	11
BCW29	TO-236 (49)	32	32	5	100	32	120	0.01 5	5	0.3		10				10	(Note 1)	68
BCW30	TO-236 (49)	32	32	5	100	32	215	0.01 5	5	0.3		10				10	(Note 1)	68
BCW31	TO-236 (49)	32	32	5	100	32	150	0.01 5	5	0.25		10				10	(Note 1)	10
BCW32	TO-236 (49)	32	32	5	100	32	200	0.01 5	5	0.25		10				10	(Note 1)	10
BCW33	TO-236 (49)	32	32	5	100	32	450	0.01 5	5	0.25		10				10	(Note 1)	10
BCW60	TO-236 (49)	32*	32	5	20	32	50	50 1	1	0.35	0.6 0.85	50				6	(Note 1)	10
BCW61	TO-236 (49)	32*	32	5	20	32	120	630 2	5	0.25	0.6 0.85	50				6	(Note 1)	68
BCW65	TO-236 (49)	60	32	5	20*	32	35	0.1 10	10		2.0	500	12	100		10	(Note 1)	10

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Type No.	Case Style	V _{CE0} [*] (V) Min	V _{CE0} [*] (V) Max	V _{BE0} (V) Min	V _{BE0} (V) Max	I _{CB0} [*] (mA) Max	I _{CB0} [*] (mA) Min	V _{CB} (V)	h _{FE} 1 kHz [*] Min	h _{FE} 1 kHz [*] Max	I _C (mA) @ V _{CE} (V)	V _{CE(SAT)} (V) Max	V _{BE(SAT)} (V) Min	V _{BE(ON)} [*] (V) Min	I _C (mA) @ V _{BE(ON)} (V) Min	C _{ob} (pF) Max	f _T (MHz) Min	f _T (MHz) Max	I _C (mA) @ f _T (MHz) Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.	
																								Min
BCW66	TO-236 (49)	45	5	45	20*	45	35	0.1	10	10	10	12	100	20	10	(Note 1)	10							10
BCW68	TO-236 (49)	45	5	45	20*	45	35	0.1	10	10	10	12	100	20	10	(Note 1)	10							10
BCW69	TO-236 (49)	45	5	45	100	20	120	260	2	5	0.3					(Note 1)	68							68
BCW70	TO-236 (49)	45	5	45	100	20	215	500	2	5	0.3					(Note 1)	68							68
BCW71	TO-236 (49)	45	5	45	100	20	110	220	2	5	0.25					(Note 1)	68							68
BCW72	TO-236 (49)	45	5	45	100	20	200	450	2	5	0.25					(Note 1)	68							68
BCW81	TO-236 (49)	45	5	45	100	20	420	800	2	5	0.25					(Note 1)	10							10
BCW89	TO-236 (49)	60	5	60	100	20	120	260	2	5	0.3					(Note 1)	68							68
BCX17	TO-236 (49)	45	5	45	100	20	100	600	100	1	0.62													67
BCX18	TO-236 (49)	25	5	25	100	20	100	600	100	1	0.62													67
BCX19	TO-236 (49)	45	5	45	100	20	100	600	100	1	0.62													12
BCX20	TO-236 (49)	25	5	25	100	20	100	600	100	1	0.62													12

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Type No.	Case Style	V _{CE0} [*] (V) Min	V _{CE0} [*] (V) Min	V _{EB0} (V) Min	I _{CE0} [*] (mA) Max	h _{FE} h _{FE} 1 kHz [*] Min Max	I _C (mA) @ Min Max	V _{CE(SAT)} (V) Max	V _{BE(SAT)} (V) Min Max	C _{ob} (pF) Max	f _T (MHz) Min Max	I _C (mA) @ Min Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BCX58	TO-92 (97)		32	7	10	120 630 80 1000 40	2 5 10 1 100 1				125	10	800	6	(Notes 3 & 4)	10
BCX58-7	TO-92 (97)		32	7	10	120 220 80 10 1 40	2 5 10 1 100 1				125	10	800	6	(Notes 3 & 4)	10
BCX58-8	TO-92 (97)		32	7	10	20 0.01 180 310 2 5 120 400 10 1 45	0.01 5 2 5 10 1 100 1				125	10	800	6	(Notes 3 & 4)	10 10
BCX58-9	TO-92 (97)		32	7	10	40 0.01 250 460 2 5 160 630 10 1 60	0.01 5 2 5 10 1 100 1				125	10	800	6	(Notes 3 & 4)	10
BCX58-10	TO-92 (97)		32	7	10	100 0.01 380 630 2 5 240 1000 10 1 60	0.01 5 2 5 10 1 100 1				125	10	800	6	(Notes 3 & 4)	10
BCX59	TO-92 (97)		45	7		120 630 2 5 80 1000 10 1 40	2 5 10 1 100 1	0.5	1.0 100		125	10	800		(Note 5)	10
BCX59-7	TO-92 (97)		45	7		120 220 2 5 80 10 1 40	2 5 10 1 100 1	0.5	1.0 100		125	10	800		(Note 5)	10
BCX59-8	TO-92 (97)		45	7		20 0.01 180 310 2 5 120 400 10 1 45	0.01 5 2 5 10 1 100 1	0.5	1.0 100		125	10	800		(Note 5)	10

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Bipolar Pro Electron Series (Continued)

Type No.	Case Style	V _{CE0} [*] (V) Min	V _{CB0} [*] (V) Min	V _{CE0} [*] (V) Min	V _{EB0} [*] (V) Min	I _{CB0} [*] (mA) Max	I _{CE0} [*] (mA) Max	h _{FE}		I _C (mA)	V _{CE} (V)	V _{CE(SAT)} (V) & Max	V _{BE(SAT)} (V) Min Max		I _C (mA) Max	C _{ob} (pF) Max	f _T (MHz) Min Max	I _C (mA) Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
								Min	Max				Min	Max								
BCX59-9	TO-92 (97)	45		45	7			40 250 160 60	0.01 460 630 100	5 2 10 1	5	0.5	1.0 100	100		125	10	800			(Note 5)	10
BCX59-10	TO-92 (97)	45		45	7			100 380 240 60	0.01 630 1000 100	5 5 1 1	5	0.5	1.0 100	100		125	10	800			(Note 5)	10
BCX70G	TO-236 (49)	45	45	45	5	20	32	120 60	220 50	2 5 1	5	0.55	0.7 1.05 50	50	4.5	125	10	800		6	(Notes 17, 19)	10
BCX70H	TO-236 (49)	45	45	45	5	20	32	180 70 20	310 50 0.01	2 5 1 5	5	0.55	0.7 1.05 50	50	4.5	125	10	800		6	(Notes 17, 19)	10
BCX70J	TO-236 (49)	45	45	45	5	20	32	250 90 40	460 50 0.01	2 5 1 5	5	0.55	0.7 1.05 50	50	4.5	125	10	800		6	(Notes 17, 19)	10
BCX71G	TO-236 (49)	45	45	45	5	20	32	120 60	220 50	2 5 1	5	0.55	0.7 1.05 50	50	4.5	125	10	800		6	(Notes 17, 19)	68
BCX71H	TO-236 (49)	45	45	45	5	20	32	180 70 20	310 50 0.01	2 5 1 5	5	0.55	0.7 1.05 50	50	4.5	125	10	800		6	(Notes 17, 19)	68
BCX71J	TO-236 (49)	45	45	45	5	20	32	250 90 40	460 50 0.01	2 5 1 5	5	0.55	0.7 1.05 50	50	4.5	125	10	800		6	(Notes 17, 19)	68
BCX78	TO-92 (97)	32		32	5			120 80 40	630 1000 100	2 10 1	5	0.6	1.0 100	100	4.5	200	10			6	(Note 1)	68
BCX78-7	TO-92 (97)	32		32	5			120 80 40	220 10 100	2 10 1	5	0.6	1.0 100	100	4.5	200	10			6	(Note 1)	68

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Bipolar Pro Electron Series

Bipolar Pro Electron Series (Continued)																			
Type No.	Case Style	V _{CE0} [*] (V) Min	V _{CE0} [*] (V) Max	V _{EB0} (V) Min	V _{EB0} (V) Max	I _{CE0} [*] (mA) Max	V _{CB} (V)	H _{FE} I _{re} 1 kHz [*] Min Max	I _C (mA) Min Max	V _{CE(SAT)} (V) & V _{BE(ON)} [*] (V) Min Max	V _{BE(SAT)} (V) Min Max	I _C (mA) Min Max	C _{ob} (pF) Max	f _T (MHz) Min Max	I _C (mA) Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BCX78-8	TO-92 (97)	32	5	5				30 0.01 5 180 310 2 5 120 400 10 1 45	0.01 5 2 5 10 1 100 1	0.6	1.0	100	4.5	200	10		6	(Note 1)	68
BCX78-9	TO-92 (97)	32	5	5				40 0.01 5 250 460 2 5 160 630 10 1 60	0.01 5 2 5 10 1 100 1	0.6	1.0	100	4.5	200	10		6	(Note 1)	68
BCX78-10	TO-92 (97)	32	5	5				100 0.01 5 380 630 2 5 240 1000 10 1 60	0.01 5 2 5 10 1 100 1	0.6	1.0	100	4.5	200	10		6	(Note 1)	68
BCX79	TO-92 (97)	45	5	5				80 1000 10 1 40 100 1 120 630 2 5	10 1 100 1 2 5	0.6	1.0	100	4.5	200	10		6	(Note 1)	68
BCX79-7	TO-92 (97)	45	5	5				120 220 2 5	2 5	0.6	1.0	100	4.5	200	10		6	(Note 1)	68
BCX79-8	TO-92 (97)	45	5	5				120 400 10 1 45 100 1 30 0.01 5 180 310 2 5	10 1 100 1 0.01 5 2 5	0.6	1.0	100	4.5	200	10		6	(Note 1)	68
BCX79-9	TO-92 (97)	45	5	5				160 630 10 1 60 100 1 40 0.01 5 250 460 2 5	10 1 100 1 0.01 5 2 5	0.6	1.0	100	4.5	200	10		6	(Note 1)	68
BCX79-10	TO-92 (97)	45	5	5				240 1000 10 1 60 100 1 100 0.01 5 380 630 2 5	10 1 100 1 0.01 5 2 5	0.6	1.0	100	4.5	200	10		6	(Note 1)	68
BD370A	TO-237 (91)	80	45	45		100	45	25 500 2 40 400 100 1	500 2 100 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	78

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Bipolar Pro Electron Series (Continued)

Type No.	Case Style	V _{CE0} [*] V _{CB0} (V) Min	V _{CE0} [*] V _{CB0} (V) Min	V _{BE0} [*] (V) Min	I _{CB0} [*] (mA) Max	I _{CB0} [*] (mA) Max	HFE I _{h0} 1 kHz [*] Min Max	I _C (mA) Max	V _{CE} (V) Max	V _{CE(SAT)} (V) & V _{BE(ON)} (V) Max	V _{BE(SAT)} (V) Min Max	I _C (mA) Max	C _{ob} (pF) Max	f _T (MHz) Min Max	I _C (mA) Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BD370A-10	TO-237 (91)	80	45		100	45	25 63	500 100	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	78
BD370A-16	TO-237 (91)	80	45		100	45	25 100	500 100	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	78
BD370A-25	TO-237 (91)	80	45		100	45	25 160	500 400	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	78
BD370B	TO-237 (91)	80	60		100	60	25 40	500 400	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	78
BD370B-10	TO-237 (91)	80	60		100	60	25 63	500 160	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	78
BD370B-16	TO-237 (91)	80	60		100	60	25 100	500 250	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	78
BD370B-25	TO-237 (91)	80	60		100	60	25 160	500 400	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	78
BD370C	TO-237 (91)	80	80		100	80	25 40	500 400	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	78
BD370C-6	TO-237 (91)	80	80		100	80	25 40	500 100	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	78
BD370C-10	TO-237 (91)	80	80		100	80	25 63	500 160	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	78
BD370C-16	TO-237 (91)	80	80		100	80	25 100	500 250	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	78
BD370D	TO-237 (91)	80	100		100	80	25 40	500 400	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	38
BD370D-6	TO-237 (91)	80	100		100	80	25 40	500 100	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	38
BD370D-10	TO-237 (91)	80	100		100	80	25 63	500 160	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	38
BD371A	TO-237 (91)	80	45		100	45	25 40	500 400	2 1	0.7	1.2*	1A	30	50	200	420	6	(Notes 5 & 6)	38

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Type No.	Case Style	V _{CE} * V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	I _{CB0} * I _{CB0} (mA) Max	HFE h _{FE} @ 1 kHz* Min Max	I _C I _C (mA) Min Max	V _{CE(SAT)} (V) & Max	V _{BE(SAT)} V _{BE(ON)} * (V) Min Max	C _{ob} (pF) Max	f _T (MHz) Min Max	I _C I _C (mA) Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BD371A-10	TO-237 (91)	80	45		100 45	25 500 63 160 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	38
BD371A-16	TO-237 (91)	80	45		100 45	25 500 100 250 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	38
BD371A-25	TO-237 (91)	80	45		100 45	25 500 180 400 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	38
BD371B	TO-237 (91)	80	60		100 60	25 500 40 400 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	38
BD371B-10	TO-237 (91)	80	60		100 60	25 500 63 160 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	38
BD371B-16	TO-237 (91)	80	60		100 60	25 500 100 250 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	38
BD371B-25	TO-237 (91)	80	60		100 60	25 500 160 400 100	500 2 100	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	38
BD371C	TO-237 (91)	80	80		100 80	25 500 40 400 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	38
BD371C-6	TO-237 (91)	80	80		100 80	25 500 40 100 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	38
BD371C-10	TO-237 (91)	80	80		100 80	25 500 63 160 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	38
BD371C-16	TO-237 (91)	80	80		100 80	25 500 100 250 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	38
BD371D	TO-237 (91)	80	100		100 100	25 500 40 400 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	39
BD371D-6	TO-237 (91)	80	100		100 100	25 500 40 100 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	39
BD371D-10	TO-237 (91)	80	100		100 100	25 500 63 160 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	39
BD372A	TO-237 (90)	80	45		100 45	25 500 40 400 100 1	500 2 100 1	0.7	1.2* 1A	30	50	200	420	6	(Notes 5 & 6)	78

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Bipolar Pro Electron Series (Continued)

Type No.	Case Style	V _{CE0} [*] (V) Min	V _{CE0} [*] (V) Max	V _{BE0} [*] (V) Min	V _{BE0} [*] (V) Max	I _{CB0} [*] (mA) Max	I _{CB0} [*] (mA) Min	V _{CB} [*] (V)	HFE I _{hfe} 1 kHz Min Max	I _C (mA) 2 1	V _{CE} (V) 2 1	V _{CE(SAT)} (V) & V _{BE(ON)} (V) Max Min	I _C (mA) Max Min	C _{ob} (pF) Max	f _T (MHz) Min Max	I _C (mA) Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BD372A-10	TO-237 (90)	80	45			100	45		25 63	500 100	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	78
BD372A-16	TO-237 (90)	80	45			100	45		25 100	500 250	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	78
BD372A-25	TO-237 (90)	80	45			100	45		25 160	500 400	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	78
BD372B	TO-237 (90)	80	60			100	60		25 40	500 400	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	78
BD372B-10	TO-237 (90)	80	60			100	60		25 63	500 100	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	78
BD372B-16	TO-237 (90)	80	60			100	60		25 100	500 250	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	78
BD372B-25	TO-237 (90)	80	60			100	60		25 160	500 400	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	78
BD372C	TO-237 (90)	80	80			100	80		25 40	500 400	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	78
BD372C-6	TO-237 (90)	80	80			100	80		25 40	500 400	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	78
BD372C-10	TO-237 (90)	80	80			100	80		25 63	500 100	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	78
BD372C-16	TO-237 (90)	80	100			100	100		25 100	500 250	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	78
BD372D	TO-237 (90)	80	100			100	100		25 40	500 400	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	79
BD372D-6	TO-237 (90)	80	100			100	100		25 40	500 100	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	79
BD372D-10	TO-237 (90)	80	100			100	100		25 63	500 100	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	79
BD373A	TO-237 (90)	80	45			100	45		25 40	500 400	2 1	0.7	1.2*	30	50	200	420	6	(Notes 5 & 6)	38

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Type No.	Case Style	V _{CE} *		V _{CE0} (V) Min	V _{BE0} (V) Min	I _{CB0} (nA) Max	I _{CB0} @ V _{CB} (V) Max	h _{FE}		I _C (mA) V _{CE} (V)	V _{CE(SAT)} (V) & V _{BE(ON)*} (V) Min Max	I _C (mA) V _{BE(SAT)} (V) Min Max	C _{ob} (pF) Max	f _T (MHz) @ I _C (mA)		t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
		Min	Max					Min	Max					Min	Max				
BD373A-10	TO-237 (90)	80	45	45	45	100	45	25 63	500 100	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BD373A-16	TO-237 (90)	80	45	45	45	100	45	25 100	500 250	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BD373A-25	TO-237 (90)	80	45	45	45	100	45	25 160	500 400	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BD373B	TO-237 (90)	80	80	80	80	100	80	25 40	500 400	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BD373B-10	TO-237 (90)	80	60	60	60	100	60	25 63	500 160	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BD373B-16	TO-237 (90)	80	60	60	60	100	60	25 100	500 250	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BD373B-25	TO-237 (90)	80	60	60	60	100	60	25 160	500 400	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BD373C	TO-237 (90)	80	80	80	80	100	80	25 40	500 400	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BD373C-6	TO-237 (90)	80	80	80	80	100	80	25 40	500 100	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BD373C-10	TO-237 (90)	80	80	80	80	100	80	25 63	500 160	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BD373C-16	TO-237 (90)	80	80	80	80	100	80	25 100	500 250	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BD373D	TO-237 (90)	80	100	100	100	100	100	25 40	500 400	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BD373D-6	TO-237 (90)	80	100	100	100	100	100	25 40	500 100	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BD373D-10	TO-237 (90)	80	100	100	100	100	100	25 63	500 160	2 1	0.7	1.2*	1A	30	50	420	6	(Notes 5 & 6)	38
BF240	TO-92 (98)	40	40	40	4	100	20	65 6	225 12	1 7	0.65	0.74*	1	0.34	1		3.5	(Note 7)	47

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Bipolar Pro Electron Series (Continued)

Type No.	Case Style	V _{CE0} [*] (V)		V _{CE} (V)		V _{CE} (V)		I _C (mA)		h _{FE} @ 1 kHz		I _C (mA)		V _{BE(SAT)} (V) & V _{BE(ON)} [*] (V)		I _C (mA)		C _{ob} (pF) Max	f _T (MHz)		t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.								
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		Min	Max												
BF241	TO-92 (98)	40		40	20	4	100	20	35	125	1	10	0.65	0.74*	1	0.34							3.5	(Note 7)	47							
BF494	TO-92 (98)	30		20		5			65	220	1	10													49							
BF495	TO-92 (98)	30		20		5			35	250	1	10													49							
BF536	TO-236 (49)	30		30		4	50	20	25		1	10													42							
BF840	TO-236 (49)	40		40		4	100	20	65	220	1	10													47							
BF841	TO-236 (49)	40		40		4	100	20	35	125	1	10													47							
BF936	TO-92 (97)	30		20		4	50	20	25		1	10											6	(Note 7)	75							
BFS18	TO-236 (49)	30		30		5	100	20	35	125	1	10													49							
BFS19	TO-236 (49)	30		30		5	100	25	65	225	1	10													49							
BSR13	TO-236 (49)	60		30	50	5	30	50	35	0.1	10	10	0.4	1.3	150	8	250	20							19							
									50	1	10	10																				
									75	10	10	10	1.6	2.6	500																	
									100	300	150	10																				
BSR14	TO-236 (49)	75		40	60	6	10	60	35	0.1	10	10	0.3	0.6	1.2	8	300	20							19							
									50	1	10	10																				
									75	10	10	10	1.0	2.0	500																	
									100	300	150	10																				

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Bipolar Pro Electron Series (Continued)																
Type No.	Case Style	V _{CE} [*] V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	I _{CS0} [*] I _{CS0} @ (nA) Max	H _{FE} h _{FE} @ 1 kHz [*] Min Max	I _C (mA) V _{CE} (V)	V _{CE(SAT)} (V) & V _{BE(ON)} [*] (V) Min Max	V _{BE(SAT)} (V) V _{BE(ON)} [*] (V) Min Max	I _C (mA) Min Max	C _{ob} (pF) Max	f _T (MHz) Min Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
BSR15	TO-236 (49)	60	40	5	20	35	0.1	0.4	1.3	150	8	200	100		(Note 9)	63
BSR16	TO-236 (49)	60	60	5	10	75	0.1	0.4	1.3	150	8	200	100		(Note 9)	63
BSR17	TO-236 (49)	60	40	6	5 μA	20	0.1	0.2	0.65	10		250	250		(Note 5)	23
BSR18	TO-236 (49)	60	40	6	5 μA	35	0.1	0.2	0.65	10		200	300		(Note 5)	66
BSR19	TO-236 (49)	160	140	6	100	60	1	0.15	1.0	10	6	100	300	10	(Note 16)	16
BSR20	TO-236 (49)	130	120	5	100	30	10	0.2	1.0	10	6	100	400	10	(Note 16)	16
BSS38	TO-236 (49)	120	100	5	200	40	4	0.7	1.2	4		60	1000		(Notes 17, 18)	16
BSS63	TO-236 (49)	110	100	6	100	30	10	0.25	0.9	25		50				74
BSS64	TO-236 (49)	120	80	5	100	20	10	0.15	1.2	4		60	1000		(Note 5)	16

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Bipolar Pro Electron Series (Continued)

Type No.	Case Style	V _{CE} [*]		V _{BE} [*]		I _{CE} [*]		h _{FE} h _{FE} @ 1 kHz [*]	V _{CE} (V)	I _C (mA)	V _{BE(SAT)} V _{BE(ON)} [*]		C _{ob} (pF) Max	f _T (MHz) Min Max	t _{off} (ns) Max	NF (dB) Max	Test Conditions	Process No.
		V _{CE0} (V) Min	V _{CEB0} (V) Min	V _{EB0} (V) Min	V _{CB0} (V) Min	I _{CB0} (mA) Max	I _{CB0} (mA) Max				V _{CE(SAT)} (V) Max	V _{BE(ON)} (V) Min Max						
BSS79-B	TO-236 (49)	60	40	5	10	50	10	40	120	150	10	0.4	150	200	20			19
BSS79-C	TO-236 (49)	60	40	5	100	50	10	100	300	150	10	0.4	150	200	20			19
BSS80-B	TO-236 (49)	60	40	5	10	50	10	40	120	150	10	0.4	150	200	20			63
BSS80-C	TO-236 (49)	60	40	5	100	50	10	100	300	150	10	0.4	150	200	20			63
BSV52	TO-236 (49)	20	12	5	100	10	1	25	1	1	1	0.3	10	400	10	18	(Note 18)	21
BSX39	TO-236 (49)		14		100	12	1	25	1	1	1	0.25	10			18	(Note 1)	21

TEST CONDITIONS:

- Note 1: I_C = 200 μA, V_{CE} = 5V, f = 1 kHz.
- Note 2: I_C = 100 mA, V_{CC} = 20V, I_B¹ = I_B² = 5 mA.
- Note 3: I_C = 200 μA, V_{CE} = 2V, f = 1 kHz.
- Note 4: I_C = 100 mA, V_{CC} = 10V, I_B¹ = I_B² = 10 mA.
- Note 5: I_C = 10 mA, V_{CC} = 3V, I_B¹ = I_B² = 1 mA.
- Note 6: I_C = 100 μA, V_{CE} = 5V, f = 1 kHz.
- Note 7: I_C = 1 mA, V_{CE} = 10V, f = 200 MHz.
- Note 8: I_C = 1 mA, V_{CE} = 5V, f = 1 kHz.
- Note 9: I_C = 150 mA, V_{CC} = 6V, I_B¹ = I_B² = 15 mA.
- Note 10: I_C = 10 μA, V_{CE} = 5V, f = WB.
- Note 11: I_C/I_B = 20.
- Note 12: I_C = 200 μA, V_{CE} = 5V, f = 30 Hz to 15 kHz.
- Note 13: I_C/I_B = 40.
- Note 14: I_C/I_B = 1000.
- Note 15: I_C/I_B = 33.
- Note 16: I_C = 250 μA, V_{CE} = 5V, f = 10 Hz to 15.7 kHz.
- Note 17: I_C = 15 mA, I_B¹ = I_B² = 1 mA.
- Note 18: I_C/I_B = 3.3.
- Note 19: I_C = 200 μA, V_{CE} = 5V, f = 200 Hz.

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