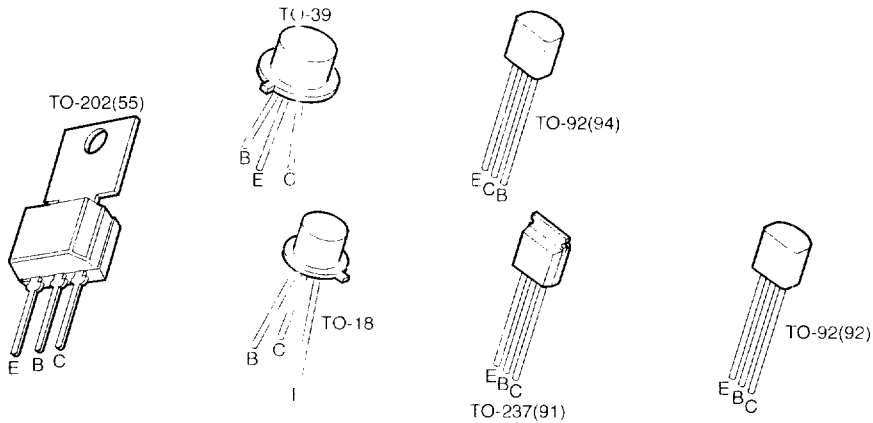


General Purpose Amplifiers and Switches

$V_{CE(sat)}$ (Volts) Min	Devices		I_C (mA) Max	$I_{CE} @ I_C$			$f_T @ I_C$		h _{FE} (Min)	Package	P _D (Amb) (mW) @25°C
	NPN	PNP		Min	Max	mA	(MHz) Min	ns			
100	2N6553		1000	80	250	50	75	100		TO-202(55)	1333
	2N6718	2N6730	1000	50	250	250	50	200		TO-237(91)	850
	NSDU07		1000	50		250	50	200		TO-202(55)	2000
80	2N3019		1000	100	300	150	100	50		TO-39	800
	2N3700		1000	100	300	150	80	1.0		TO-18	500
	2N6707		1000	40	250	250	50	200		TO-237(90)	850
	2N6717	2N6729	1000	50	250	250	50	200		TO-237(91)	850
	2N6731	2N6732	1000	100	300	350	50	200		TO-237(91)	850
	BC639	BC640	1500	40	250	150	130 Typ	100		TO-92(94)	625
	D40E7		1000	50		100	200 Typ	20		TO-202(55)	1333
	MPSA06	MPSA56	50	100	—	100	100	10		TO-92(92)	625
	BCP56	BCP53	1500	40	250	150				SOT-223	1500
	NSD105		1500	120	360	100	60	50		TO-202(55)	2000
	TN3019		1000	100	300	150	100	50		TO-237(91)	850
		2N4033	1000	100	300	100	150	50		TO-39	800
		2N6555	1000	80	300	50	75	50		TO-202(55)	1333
		PN4356	500	50	250	10	100	50		TO-92(92)	625
		TN4033	1000	100	300	100	150	50		TO-237(91)	850
75	2N5320	2N5322	2000	30	250	500	50	50		TO-39	800

* TO-236AB is standard for all devices
Please refer to Surface Mount section for TO-236 Device Marking.



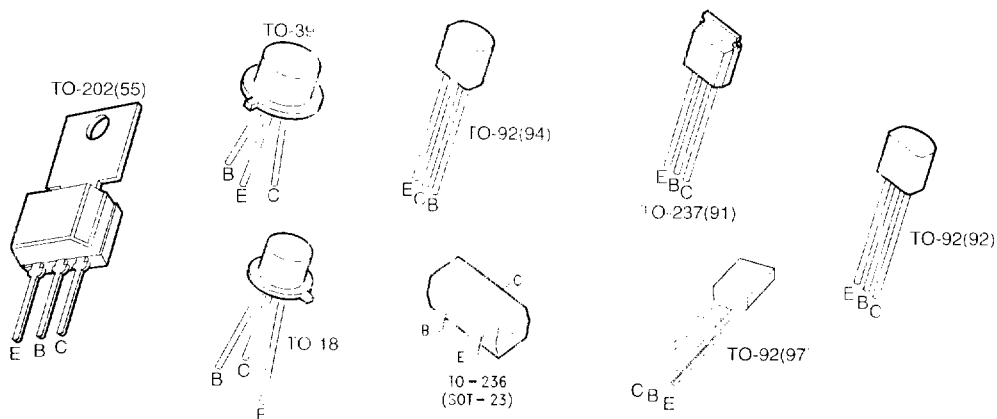
General Purpose Amplifiers and Switches (continued)

V _{CE0} (test) (Volts) Min	Devices		I _C (mA) Max	h _{FE} @ I _C			f _T @ I _C		NF (dB) Max	Package	P _D (Amb) (mW) @25°C	
	NPN	PNP		Min	Max	mA	(MHz) Min	mA				
65	BC546		100	110	450	2.0	300 Typ	10	10	TO-92(97)	625	
	BC846		100	110		0.01	300 Typ	10	10	TO-236*	350	
						450	2.0				TO-236*	
		2N4036		1000	40	140	150	60	50	TO-39	1000	
		BC556		100	75	475	2.0	300 Typ	10	10	TO-92(97)	625
		BC856		100	125	475	2.0	300 Typ	10	10	TO-236*	350
	TN4036			1000	40	140	150	60	50	TO-237(91)	850	
60	2N2484		50	100	500	0.01	15	0.5		TO-18	360	
	2N3859A		100	100	200	10	90	2.0		TO-92(94)	625	
	2N5961		50	150	700	10	100	10	3.0	TO-18	400	
	2N6551		1000	80	300	50	75	100		TO-202(55)	1333	
	2N6716	2N6728		1000	50	250	250	50	200	TO-237(91)	850	
	BC637	BC639		1500	40	250	150	130 Typ	100	TO-92(94)	625	
	MPS8098			500	100	300	1.0	1.0	10	TO-92(92)	625	
	MPSA05	MP5A55		500	100		100	1.0	10	TO-92(92)	625	
	NSDU05	NSDU55		1500	50		250	50	200	TO-202(55)	1333	
	PN3568			500	40	120	150	60	50	TO-92(92)	625	
	TIS98			200	100	300	1.0	200	10	TO-92(97)	625	
		2N2904A		600	40	120	150	200	50	TO-39	600	
		2N2905A		600	100	300	150	200	50	TO-39	600	
		2N2907A		600	100	300	150	200	50	TO-18	400	
		2N3962		200	100	300	0.01	40	0.5	TO-18	360	

* TO-236AB is standard for all devices.

Please refer to Surface Mount section for TO-236 Device Marking

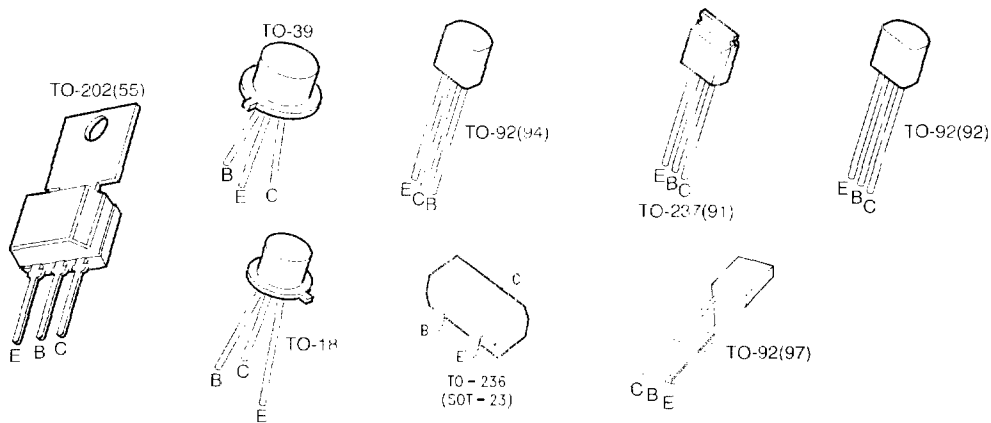
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General Purpose Amplifiers and Switches (continued)

V _{CEO(rust)} (Volts) Min	Devices		I _C (mA) Max	h _{FE} @ I _C			f _T @ I _C		NF (dB) Max	Package	P _D (Amb) (mW) @25°C
	NPN	PNP		Min	Max	mA	(MHz) Min	mA			
60		2N4032	1000	100	300	100	150	50		TO-39	800
		2N6554	1500	80	300	50	75	50		TO-202(55)	1333
		PZT2907A	600	100	300	10	200	50		SOT-223	1500
	BCP55	BCP52	1500	40	250	150				SOT-223	1500
		MMBT2907A	600	100	300	150	200	50		TO-236*	350
		PN2907A	600	100	300	150	200	50		TO-92(92)	625
		PN3645	500	100	300	150	200	20		TO-92(92)	625
		PN4249	100	100	300	0.1	40	3.5	3.0	TO-92(92)	625
		PN4250A	100	250	700	0.1	40	3.5	2.0	TO-92(92)	625
		PN4355	500	100	400	10	100	50		TO-92(92)	625
	TN2905A	600	100	300	150	200	50		TO-237(91)	850	
50	2N3416		500	75	225	2.0				TO-92(94)	360
	2N3417		500	180	540	2.0				TO-92(94)	360
	2N956		1000	50	200	150	70	50		TO-18	500
	BC182		100	125	500	2.0	150	10	10	TO-92(97)	625
		2N5323	2000	40	250	500	50	50		TO-39	
		BC212	100	60	400	2.0	200	10	10	TO-92(97)	625
45	2N2270		1000	50	200	150	100	50		TO-39	1000
	2N5962		50	600	1400	10	100	10	3.0	TO-18	400
	2N930		200	100	300	0.01	150	5		TO-18	300
	BC237	BC307	100	120	460	2.0	150	10	10	TO-92(97)	625
	BC337	BC327	1000	100	600	100				TO-92(97)	625
	BC547		100	110	800	2.0	300 Typ	10	10	TO-92(97)	625

* TO-236AB is standard for all devices
Please refer to Surface Mount section for TO-236 Device Marking.



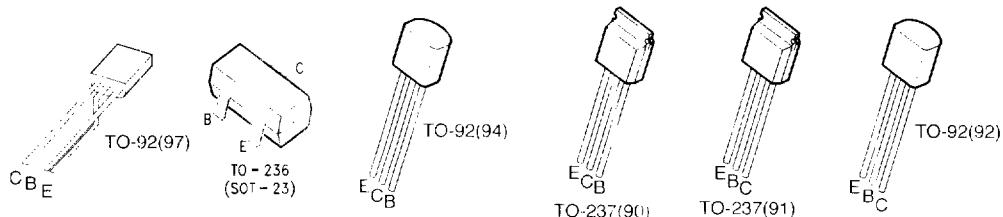
General Purpose Amplifiers and Switches (continued)

V _{CE(sat)} (max) VDC	Device		I _C (mA) Max	h _{FE} @ I _C			f _T @ I _C		h _{FE} (min) Max	Package	P _D (Amb) (mW) @25°C	
	PNP	NPN		Min	Max	mA	(MHz) Min	Max				
45	BC550		100	200	800	2.0	300 Typ	10	3.0	TO-92(97)	625	
	BC635	BC636	500	40	250	150	130 Typ	100		TO-92(94)	625	
	BC817	BC807	500	100	600	100	200 Typ	100		TO-236*	350	
	BC847			100	110		0.01	300 Typ	10	10	TO-236*	350
						800	2.0				TO-236*	
	BC850			100	200		0.01	300 Typ	10	3.0	TO-236*	350
						800	2.0				TO-236*	
	BCX19	BCX17	500	100	600	100	100 Typ	50		TO-236*	350	
	BCX59	BCX79	100	120	630	2.0	125	10	6.0	TO-92(97)	625	
	BCX70		100	120	630	2.0	125	10	6.0	TO-236*	350	
	BD371	BD370	1000	40	400	100	50	200		TO-237(91)	850	
	BD373	BD372	1000	40	400	100	50	200		TO-237(90)	850	
	MMBT100	MMBT200	500	100	450	10	250	20	4.0	TO-236*	350	
	PN100	PN200	500	100	450	10	250	20	4.0	TO-92(92)	625	
	PN100A	PN200A	500	300	600	10	250	20	4.0	TO-92(92)	625	
	PN3642		500	40	120	150	150	50		TO-92(92)	625	
	PN930		30	100	300	0.01	30	0.5		TO-92(92)	625	
		BC557	100	75	260	2.0	300 Typ	10	10	TO-92(97)	625	
		BC560	100	75	800	2.0	300 Typ	10	3.0	TO-92(97)	625	
		BC857	100	125	800	2.0	300 Typ	10	10	TO-236*	350	
	BC860	100	125	800	2.0	300 Typ	10	3.0	TO-236*	350		
	BCX71	100	120	630	2.0	125 Typ	20	6.0	TO-236*	350		

* TO-236AB is standard for all devices.

Please refer to Surface Mount section for TO-236 Device Marking.

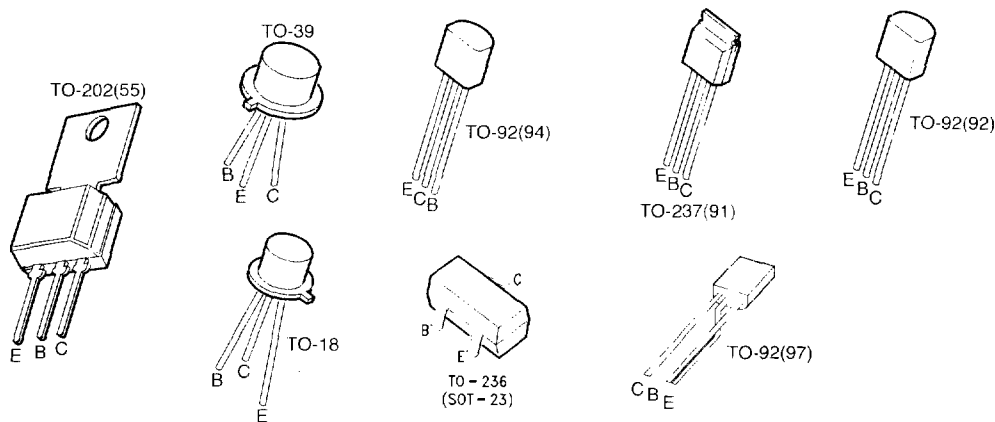
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General Purpose Amplifiers and Switches (continued)

$V_{CE(sat)}$ (Volts) Min	Devices		I_C (mA) Max	$I_{CE} @ I_C$			$I_T @ I_C$		NF (dB) Max	Package	P_D (Aval) (mW) @25°C
	NPN	PNP		Min	Max	AF	(Max) Min	Max			
45	BCX59	BCX79	100	120	630	2.0	125	10	6.0	TO-92(97)	625
		D41D4	1500	50	150	100	150	20		TO-202(55)	1333
		D41D5	1500	120	360	100	150	20		TO-202(55)	1333
		PN3644	500	100	300	150	200	20		TO-92(92)	625
40	2N2219A		500	100	300	150	300	20		TO-39	800
	2N2222A		500	100	300	150	300	20		TO-18	400
	2N3053		700	50	250	150	100	50		TO-39	800
	2N3903		200	50	150	10	250	10	6.0	TO-92(92)	625
	2N3904		200	100	300	10	300	10	5.0	TO-92(92)	625
	2N4400		600	50	150	150	200	20		TO-92(92)	625
	2N4401		600	100	300	150	250	20		TO-92(92)	625
	2N6715	2N6727	1000	50	250	1000	50	50		TO-237(91)	850
	2N697		200	40	120	150				TO-39	600
	MMBT2222A		500	100	300	150	300	20		TO-236*	350
	PZT2222A		600	100	300	10	300	20		SOT-223	1500
	MMBT3904		200	100	300	10	300	10	5.0	TO-236*	350
	PZT3904		200	100	300	10	300	10		SOT-223	1500
	MMBT4400		600	50	150	150	200	20		TO-236*	350
	MMBT4401		600	100	300	150	250	20		TO-236*	350
	MPS6531	MPS6534	600	90	270	100	250 Typ	20	2.0 Typ	TO-92(92)	625
		PN2222A	500	100	300	150	300	20	4.0	TO-92(92)	625

* TO-236AB is standard for all devices.
Please refer to Surface Mount section for TO-236 Device Marking.



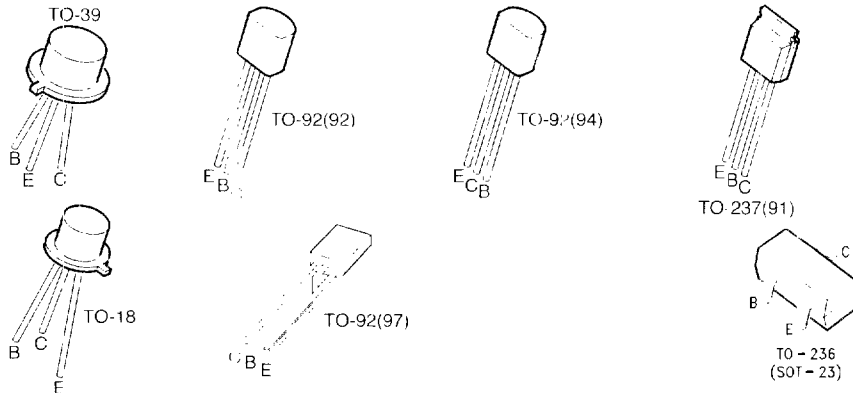
General Purpose Amplifiers and Switches (continued)

$V_{CE0(sust)}$ (Volts) Min	Devices		I_C (mA) Max	$h_{FE} @ I_C$			$f_T @ I_C$		NF (dB) Max	Package	P_D (Amb) (mW) @25°C	
	NPN	PNP		Min	Max	mA	(MHz) Min	mA				
40	PN3567		500	40	120	150	60	50		TO-92(92)	625	
	PN3569		500	100	300	150	60	50		TO-92(92)	625	
	TIS97		200	250	700	0.1	200	10		TO-92(97)	625	
	TN2219A		500	100	300	150	300	20		TO-237(91)	850	
		2N2904		600	40	120	150	200	50		TO-39	600
		2N2905		600	100	300	150	200	50		TO-39	600
		2N2907		600	100	300	150	200	50		TO-18	400
		2N3905		200	50	150	10	200	10	5.0	TO-92(92)	625
		2N3906		200	100	300	10	250	10	4.0	TO-92(92)	625
		2N4037		1000	50	250	150	60	50		TO-39	1000
		2N4402		600	50	150	150	150	20		TO-92(92)	625
		2N4403		600	100	300	150	200	20		TO-92(92)	625
		2N5366		500	100	300	50	300	20		TO-92(94)	360
		MMBT2907		600	100	300	150	200	50		TO-236*	350
		MMBT3906		200	100	300	10	250	10	4.0	TO-236*	350
		PZT3906		200	100	300	10	250	10		SOT-223	1500
		MMBT4403		600	50	150	150	150	20		TO-236*	350
		MMBT4403		600	100	300	150	200	20		TO-236*	350
		PN4121		100	70	200	10	400	10	4.0	TO-92(92)	625
		PN4122		100	150	600	10	450	10	4.0	TO-92(92)	625
	PN4250		100	250	700	0.1	40	0.5	2.0	TO-92(92)	625	
	TIS93		400	100	300	50				TO-92(97)	625	
	TN2905		600	100	300	150	200	50		TO-237(91)	850	

* TO-236AB is standard for all devices

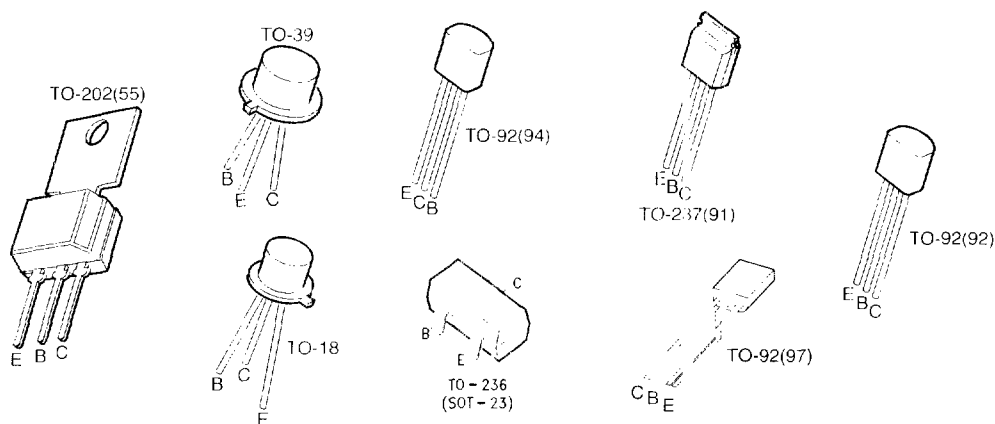
Please refer to Surface Mount section for TO-236 Device Marking

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$V_{CE(sat)}$ (Volts) Min	Devices		I_C (mA) Max	$h_{FE} @ I_C$			$f_T @ I_C$		NF (dB) Max	Package	$P_D (Amb)$ (mW) @25°C
	NPN	PNP		Min	Max	mA	(MHz) Min	MHz			
32	BCW33		100	420	800	2.0	300 Typ	10	3.0	TO-236*	350
	BCX58		100	120	630	2.0	125	10	6.0	TO-92(97)	625
		BCX78	100	120	630	2.0	200	10	6.0	TO-92(97)	625
30	2N2222		500	100	300	150	250	20		TO-18	400
	2N3300		500	100	300	150	250	50		TO-39	800
	2N3302		500	100	300	150	250	50		TO-18	360
	2N3704		500	100	300	50	100	50		TO-92(94)	625
	2N4123		200	50	150	2.0	250	10	6.0	TO-92(92)	625
	2N6714	2N6726	1000	50	250	1000	50	50		TO-237(91)	850
	BC183		100	125	900	2.0	150	10	10	TO-92(97)	625
	BC184		100	240	900	2.0	150	4.0	10	TO-92(97)	625
	BC548		100	110	800	2.0	300 Typ	10	10	TO-92(97)	625
	BC549		100	200	800	2.0	300 Typ	10	4.0	TO-92(97)	625
	BC848		100	110		0.01	300 Typ	10	10	TO-236*	350
						800	2.0			TO-236*	
	BC849		100	200		0.01	300 Typ	10	4.0	TO-236*	350
						800	2.0			TO-236*	
	D40D1		1000	50	150	100	200 Typ	20		TO-202(55)	1333
	D40D2		1000	120	360	100	200 Typ	20		TO-202(55)	1333
MMBT2222		500	100	300	150	250	20		TO-236*	350	
MMBT4123		200	50	150	2.0	250	10	6.0	TO-236*	350	

* TO-236AE is standard for all devices.
Please refer to Surface Mount section for TO-236 Device Marking.

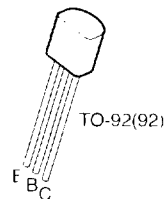
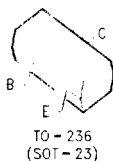
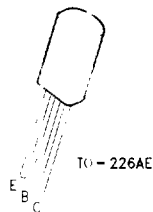
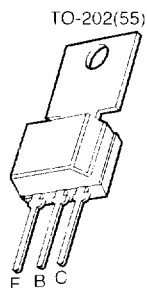


General Purpose Amplifiers and Switches (continued)

V _{CE(sat)} (Volts) Min	Devices		I _C (mA) Max	f _T @ I _C			f _T @ I _C		h _{FE}	Package	Power Dissipation	
	NPN	PNP		Min	Max	mA	(MHz) Min	Max				
30	MPSW01A	MPSW51A	1000	50		1000	50	50		TO-226	1000	
	NSDU01		1000	60		100	50	50		TO-202(55)	1333	
	PN2222		500	100	300	150	250	20		TO-92(92)	625	
	PN3566		200	150	600	10	40	30		TO-92(92)	625	
	PN3643		500	100	300	150	250	50		TO-92(92)	625	
	PN4141		500	100	300	150	250	20		TO-92(92)	625	
	TN2219		500	100	300	150	250	20		TO-237(91)	850	
		2N4125		200	50	150	2.0	200	10	5.0	TO-92(92)	625
		BC213		100	80	600	2.0	200	10	10	TO-92(97)	625
		BC214		100	140	600	2.0	200	10	2.0	TO-92(97)	625
		BC558		100	75	800	2.0	300 Typ	10	10	TO-92(97)	625
		BC559		100	75	800	2.0	300 Typ	10	4.0	TO-92(97)	625
		BC858		100	125	800	2.0	300 Typ	10	10	TO-236*	350
		BC859		100	125	800	2.0	300 Typ	10	4.0	TO-236*	350
		MMBT4125		200	50	150	2.0	200	10	5.0	TO-236*	350
		PN2907		500	100	300	150	200	20		TO-92(92)	625
		PN4143		500	100	300	150	200	20		TO-92(92)	625
		PN4917		100	150	300	10	450	10	4	TO-92(92)	625
		PN5138		50	50	800	0.1	30	0.5		TO-92(92)	625

* TO-236AB is standard for all devices.
Please refer to Surface Mount section for TO-236 Device Marking

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V _{CE0(sust)} (Volts) Min	Devices		I _C (mA) Max	h _{FE} @ I _C			f _T @ I _C		NF (dB) Max	Package	P _D (Amb) (mW) @25°C	
	NPN	PNP		Min	Max	mA	(MHz) Min	mA				
25	2N3391A		100	250	500	2.0	120 Typ.	2.0	5.0	TO-92(94)	360	
	2N3392		100	150	300	2.0	120 Typ.	2.0		TO-92(94)	360	
	2N3393		100	90	180	2.0	120 Typ.	2.0		TO-92(94)	360	
	2N3415		500	180	540	2.0				TO-92(94)	360	
	2N4124		200	120	360	2.0	300	10	5.0	TO-92(92)	625	
	2N5172		100	100	500	10	120	5.0		TO-92(94)	360	
	BC238	BC308	100	125	900	2.0	150	10	10	TO-92(97)	625	
	BC338	BC328	800	100	600	100				TO-92(94)	625	
	BC818	BC808	500	100	600	100	150 Typ	100		TO-236*	350	
		BCX18	500	100	600	100	200 Typ	50		TO-236*	350	
		BCX20	500	100	600	100	130 Typ	50		TO-236*	350	
		MMBT4124		200	120	360	2.0	300	10	5.0	TO-236*	350
		MPS6514		100	150	300	2.0	450 Typ	10	2.0 Typ	TO-92(92)	625
		MPS6515	MPS6518	100	250	500	2.0	450 Typ	10	2.0 Typ	TO-92(92)	625
		MPS6521	MPS6523	100	200	600	2.0	450 Typ	10	2.0 Typ	TO-92(92)	625
		PN3565		50	150	600	1.0	40	1.0		TO-92(92)	625
			2N3702	200	60	300	50	100	50		TO-92(94)	625
			2N4126	200	120	360	2.0	250	10	4.0	TO-92(92)	625
			MMBT4126	200	120	360	2.0	250	10	4.0	TO-236*	350
			MPS6562	500	50	200	500	60	10		TO-92(92)	625
		PN3638	500	30		50	100	50		TO-92(92)	625	
		PN3638A	500	100		50	150	50		TO-92(92)	625	
20	BC239	BC309	100	180	800	2.0	150	10	10	TO-92(94)	625	
	BC368	BC369	1000	85	375	500				TO-92(97)	625	

* TO-236AB is standard for all devices.
Please refer to Surface Mount section for TO-236 Device Marking.

