

METAL SMALL-SIGNAL TRANSISTORS (continued)

General-Purpose Amplifiers (continued)

Package	Device Type	V _{(BR)CEO} Volts Min	f _T MHz Min	@ I _C mA	I _C mA Max	Min	h _{FE} Max	@ I _C mA	Comments
PNP									
TO-18	2N3963	80	40	0.5	200	100	450	0.01	Exists under CECC Exists under CECC
	2N4026	80	100	50	1000	15	—	100	
	2N4029	80	150	50	1000	25	—	100	Exists in A, B, C HFE groups Exists in VII, VIII, IX, X HFE groups
	2N3799	60	30	0.5	50	300	900	0.5	
	2N2906A#	60	200	50	600	40	120	150	Exists under CECC Exists under CECC
	2N2907A†	60	200	50	600	100	300	150	
	2N3964	45	50	0.5	200	250	600	0.01	Exists in VII, VIII, IX, X HFE groups Exists in A, B, C HFE groups
	BC177	45	130	10	100	70	500	2	
	BCY79	45	180*	10	200	120	630	2	Exists under CECC Exists under CECC
	BCY71	45	200	10	200	100	600	10	
	2N2906#	40	200	50	600	40	120	150	Exists in VII, VIII, IX, X HFE groups Exists in A, B, C HFE groups
	2N2907#	40	200	50	600	100	300	150	
	BCY70	40	250	10	200	50	—	10	Exists in A, B, C HFE groups Exists in A, B, C HFE groups
	2N3251	40	300	10	200	100	300	10	
	BCY78	32	180*	10	200	120	630	2	Exists in A, B, C HFE groups Exists in A, B, C HFE groups
	BC178	30	130	10	100	70	800	2	
	BCY72	25	200	10	200	50	—	10	Exists in A, B, C HFE groups Exists in A, B, C HFE groups
	BC179	20	130	10	100	120	800	2	
TO-39	MM5007	100	30	50	2000	50	250	250	Exists in -10 HFE group
	BSV17	80	50	50	1000	40	160	100	
	2N4033#	80	150	50	1000	25	—	100	Exists under CECC
	2N4405**	80	200	50	1000	100	300	150	
	BFX41	75	100	50	1000	40	—	100	Exists in -6, -10 HFE groups Exists in -6, -10, -16 HFE groups
	BFX40	75	100	50	1000	85	—	100	
	2N4036	65	60	50	1000	40	140	150	Exists under CECC Exists under CECC
	BSV16	60	50	50	1000	40	250	100	
	BC161	60	50	50	1000	40	400	100	Exists in -6, -10 HFE groups Exists in -6, -10, -16 HFE groups
	2N2904A#	60	200	50	600	40	120	150	
	2N2905A†	60	200	50	600	100	300	150	Exists in -6, -10, -16, HFE groups Exists in -6, -10 HFE groups
	BC160	40	50	50	1000	40	400	100	
	BSV15	40	50	50	1000	40	250	100	Exists under CECC Exists under CECC
	2N2904#	40	200	50	600	40	120	150	
	2N2905#	40	200	50	600	100	300	150	
TO-46	2N2605#	45	30	0.5	30	100	300	0.01	
	2N3486	40	200	50	600	100	300	150	

* JAN available

** JAN/JANTX available

JAN/JANTX/JANTXV available

METAL SMALL-SIGNAL TRANSISTORS (continued)

Choppers

Devices are listed in decreasing $V_{(BR)EBO}$.

Package	Device	$V_{(BR)EBO}$ Min	$V_{(BR)ECO}$	Min $h_{FE(inv)}$	Offset Voltage $V_{EC(ofs)}$ Max (mV)	On-State Resistance $r_{ec(on)}$ Max (Ω)
TO-46	2N2946	40	35	3.0	2.0	45
	2N2946A	40	35	20	2.0	8.0
	2N5230	30	20	15	0.5	8.0
	2N5231	30	20	15	0.8	10
	2N2945A	25	20	30	1.0	6.0
	2N2945	25	20	4.0	1.0	35
	2N5229	15	10	15	0.5	6.0

JAN/JANTX available

CECC Qualified Types

Qualified products to CECC 50000

All CECC types are available to assessment levels E, F, L

2N1613 (CECC) 2N1711 (CECC) 2N1893 (CECC) 2N2218 (CECC) 2N2218A (CECC) 2N2219 (CECC) 2N2219A (CECC) 2N2221 (CECC) 2N2221A (CECC) 2N2222 (CECC) 2N2222A (CECC) 2N2368 (UTE)	2N2369 (CECC) 2N2369A (CECC) 2N2484 (CECC) 2N2894 (CECC) 2N2904 (CECC) 2N2904A (CECC) 2N2905 (CECC) 2N2905A (CECC) 2N2906 (CECC) 2N2906A (CECC) 2N2907 (CECC) 2N2907A (CECC) 2N3439 (CECC)	2N3440 (CECC) 2N3501 (CECC) 2N4033 (CECC) 2N5415 (CECC) 2N5416 (CECC) BC107-108-109 (CECC) CV8616 (CECC) CV9507 (CECC) CV9543 (CECC) PO7726 (CECC)
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