

METAL SMALL-SIGNAL TRANSISTORS (continued)

High-Voltage/High-Current Amplifiers (continued)

The following table lists Motorola standard devices that have high Collector-Emitter Breakdown Voltage. Devices are listed in decreasing order of $V_{(BR)CEO}$ within each package type.

Package	Device Type	$V_{(BR)CEO}$ Volts Min	I_C mA Max	h_{FE} Min	@ I_C mA	$V_{CE(sat)}$ Volts Max	@ I_C mA	& I_B mA	f_T MHz Min	@ I_C mA	Comments
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NPN

TO-39	BUY49S	200	3000	40	500	0.2	500	50	—	—	Exists under CECC
	BF257	160	100	25	30	1.0	30	6	110	30	
	BSW68A	150	2000	30	500	1.0	500	150	—	—	
	2N3114	150	200	30	30	1.0	50	5.0	40	30	
	2N3501#	150	300	100	150	0.4	150	15	150	20	
	BSW67A	120	2000	30	500	1.0	500	150	—	—	
	2N5682	120	1000	40	250	0.6	250	25	30	100	
	MM3007	100	2500	50	250	0.35	150	15	50	50	
	2N5681	100	1000	40	250	0.6	250	25	30	100	
	2N4239	80	3000	30	250	0.3	500	50	2	100	
	MM3005	60	2500	50	150	0.35	150	15	50	50	
	2N4237	40	3000	30	250	0.3	500	50	2	100	

PNP

TO-18	BSS76	300	500	35	30	0.5	50	5.0	100	20	
	BSS75	250	500	35	30	0.5	50	5.0	100	20	
	BSS74	200	500	35	30	0.5	50	5.0	100	20	
	BC393	180	500	50	10	0.3	10	1.0	50	20	
	2N3497	120	100	40	10	0.35	10	1.0	150	20	
TO-39	2N5416#	300	1000	30	50	2.5	50	5	15	10	Exists under CECC
	MM4003	250	500	20	10	5.0	10	1.0	—	—	Exists under CECC
	2N5415#	200	1000	30	50	2.5	50	5	15	10	
	2N3637#	175	1000	100	50	0.5	50	5.0	200	30	
	MM4001	150	500	20	10	0.6	10	1.0	—	—	
	2N3635#	140	1000	100	50	0.5	50	5.0	200	30	
	2N3634#	140	1000	50	50	0.5	50	5.0	150	30	
	2N3495	120	100	40	10	0.35	10	1.0	150	20	
	2N5680	120	1000	40	250	0.6	250	15	30	100	
	MM4000	100	100	20	10	0.6	10	1.0	—	—	
	MM5007	100	2000	50	250	0.5	150	15	30	50	
	2N5679	100	1000	40	250	0.6	250	25	30	100	
	2N4236	80	3000	30	250	0.6	1000	125	3	100	
	2N4036	65	1000	40	150	0.65	150	15	60	50	
	MM5005	60	2000	50	150	0.5	150	15	30	50	
	2N4235	60	3000	30	250	0.6	1000	125	3	100	
	2N4234	40	3000	30	250	0.6	1000	125	3	100	

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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