



MOLD TYPE BIPOLAR TRANSISTORS

Ratings and Specifications

5 High voltage high speed switching transistors

- The transistor is best suited for use with 240V AC input switching regulators.
- Can operate within the 30kHz range

Device type	V _{CB0}	V _{CEO}	V _{CEO} (sus)	I _C cont.	P _C	h _{FE} min.	I _C		Switching time (Max.)			Package	Net mass Grams	Equivalent circuit Page 31
	Volts	Volts	Volts	Amps	Watts		I _C Amps	V _{CE} Volts	t _{on} μsec.	t _{stg} μsec.	t _f μsec.			
2SC3505	900	700	700	6	80	10	2	5	1.0	5.0	1.0	TO-3P	6	—
2SD2234	1500	700	700	3	40	18	0.6	5	1.0	4.0	0.5	TO-220F17	2.5	—
2SD2047	1500	700	700	5	80	18	1	5	1.0	3.0	0.5	TO-3PF	6	—
2SC3866	900	800	800	3	40	10	1	5	1.0	4.0	0.8	TO-220F17	2.5	—
2SC3549	900	800	800	3	40	10	1	5	1.0	4.0	0.8	TO-220AB	2	—
2SC3550	900	800	800	3	80	10	1	5	1.0	4.0	0.8	TO-3P	6	—
2SC4603	900	800	800	3	80	10	1	5	1.0	4.0	0.8	TO-3PF	6	—
2SC3551	900	800	800	5	80	10	2	5	1.0	4.0	0.8	TO-3P	6	—
2SC4538	900	800	800	5	80	10	2	5	1.0	4.0	0.8	TO-3PF	6	—
2SC4419	900	800	800	6	100	10	2	5	1.0	4.0	0.8	TO-3P	6	—
2SC3030	900	800	800	7	80	8	3	5	0.5	2.5	0.8	TO-3P	6	Fig. B5

6 Low voltage high current switching transistors

- High speed switching performance
- Suitable for motor control applications such as DC-DC converters, golf carts, fork-lifts and industrial sewing machines using battery power supply.

Device type	V _{CB0}	V _{CEO}	V _{CEO} (sus)	I _C cont.	P _C	h _{FE} min.	I _C		Switching time (Max.)			Package	Net mass Grams	Equivalent circuit
	Volts	Volts	Volts	Amps	Watts		I _C Amps	V _{CE} Volts	t _{on} μsec.	t _{stg} μsec.	t _f μsec.			
2SD1049	120	80	80	25	80	20	25	5	1.0	2.5	0.4	TO-3P	6	—

7 Ultra high β transistors (UBT)

- The DC current gain is extraordinarily high (min.250).
- h_{FE} – I_C characteristics are linear.
- No drive-stage transistor is required.
- Ideally suited for series regulators, color TV, power supplies and similar devices

Device type	V _{CB0}	V _{CEO}	V _{CEO} (sus)	I _C cont.	P _C	h _{FE} min.	I _C		Switching time (Max.)			Package	Net mass Grams	Equivalent circuit Page 31
	Volts	Volts	Volts	Amps	Watts		I _C Amps	V _{CE} Volts	t _{on} μsec.	t _{stg} μsec.	t _f μsec.			
2SD1158	80	50	50	8	40	250	1	5	0.5	3.0	0.8	TO-220AB	2	—
2SD1118	80	50	50	10	50	300	1	5	0.5	3.0	0.3	TO-220AB	2	—
2SD1740	150	100	80	5	30	700	1	4	—	—	—	TO-220F17	2.5	Fig. B1
2SD1128	150	100	100	5	30	700	1	4	—	—	—	TO-220AB	2	Fig. B1
2SD923	150	100	100	10	80	700	3	4	—	—	—	TO-3P	6	Fig. B1
2SD982	200	180	180	5	60	700	1	4	—	—	—	TO-220AB	2	Fig. B1
2SD921	200	180	180	5	80	700	1	4	—	—	—	TO-3P	6	Fig. B1
2SD2431	200	180	180	5	80	700	1	4	—	—	—	TO-3PF	6	Fig. B1
ET382	200	180	180	5	40	700	1	4	—	—	—	TO-220F17	2.5	Fig. B1