

Low-Saturation Voltage Series(TO-220, MF, ML Package)

Applications

* Relay drivers. * High-speed inverters. * Converters. * High-current switching.

Features

* Low VCE(sat). * Highly resistant to breakdown because of wide ASO. * Fast switching speed.

VCEO 30V Series (hFE:Q,R,S)

(For PNP, minus sign is omitted.)

Type No.	Package	Absolute Maximum Ratings/Ta=25°C				Electrical Characteristics/Ta=25°C						
		V _{CEO} (V)	V _{CEO} (V)	I _C (A)	P _C Tc=25°C (W)	V _{CE} (V)	I _C (A)	h _{FE}	I _C (A)	I _B (A)	V _{CE(sat)} max (V)	f _T (MHz)
2SB1267 2SD1903	TO-220MF	60	30	8	30	2	1	70~280	3	0.15	0.5 0.4	120
2SB919 2SD1235	TO-220			8	30				3	0.15	0.5 0.4	
2SB903 2SD1212				12	35				5	0.25	0.5 0.4	
2SB1467 2SD2218	TO-220 ML			8	20				3	0.15	0.5 0.4	
2SB1468 2SD2219				12	25				5	0.25	0.5 0.4	

VCEO 50V/60V Series (hFE:Q,R,S)

2SB1268 2SD1904	TO-220MF	60	50	5	30	2	1	70~280	3	0.3	0.4 0.4	30					
2SB1269 2SD1905				7	40				4	0.4	0.4 0.4	10					
2SB824 2SD1060	TO-220			5	30				3	0.3	0.4 0.4	30					
2SB825 2SD1061				7	40				4	0.4	0.4 0.4	10					
2SB826 2SD1062				12	40				6	0.3	0.5 0.4	10					
2SB1134 2SD1667	TO-220ML			5	25				3	0.3	0.4 0.4	30					
2SB1135 2SD1668				7	30				4	0.4	0.4 0.4	10					
2SB1136 2SD1669				12	30				6	0.6	0.4 0.4	10					
2SA1289 2SC3253	TO-220			80	60				5	30	2	1	70~280	2.5	125m	0.4 0.4	100
2SA1290 2SC3254									7	35				3.5	175m	0.4 0.4	
2SA1291 2SC3255		10	40			5	0.25	0.4 0.4									
2SA1469 2SC3746	TO-220ML	5	20			2.5	125m	0.4 0.4									
2SA1470 2SC3747		7	25			3.5	175m	0.4 0.4									
2SA1471 2SC3748		10	30			5	0.25	0.4 0.4									

VCEO 80V Series (hFE:Q,R,S)

2SB1270 2SD1906	TO-220MF	90	80	5	30	2	1	70~280	3	0.3	0.5 0.4	20
2SB1271 2SD1907				7	40				4	0.4	0.5 0.4	
2SB920 2SD1236	TO-220			5	30				3	0.3	0.5 0.4	
2SB921 2SD1237				7	40				4	0.4	0.5 0.4	
2SB1454 2SD2202	TO-220ML			5	25				3	0.3	0.5 0.4	
2SB1455 2SD2203				7	30				4	0.4	0.5 0.4	

These specifications are subject to change without notice.

Low-Saturation Voltage Series (TO-3PB, ML Package)

Applications

- * Relay drivers.
- * High-speed inverters.
- * Converters.
- * High-current switching.

Features

- * Low $V_{CE(sat)}$.
- * Highly resistant to breakdown because of wide ASO.
- * Fast switching speed.

V_{CEO} 30V Series (hFE:Q,R,S)

(For PNP, minus sign is omitted.)

Type No.	Package	Absolute Maximum Ratings/Ta=25°C				Electrical Characteristics/Ta=25°C						
		V _{CB0} (V)	V _{CEO} (V)	I _C (A)	P _C T _c =25°C (W)	V _{CE} (V)	I _C (A)	h _{FE}	I _C (A)	I _B (A)	V _{CE(sat)} max (V)	f _T typ (MHz)
2SB904 2SD1213	TO-3PB	60	30	20	60	2	1	70~280	8	0.4	0.5	120
2SB1511 2SD2285	TO-3PML			20	40						0.4	

V_{CEO} 50V/60V Series (hFE:Q,R,S)

2SB827 2SD1063	TO-3PB	60	50	7	60	2	1	70~280	4	0.4	0.4	10
2SB828 2SD1064				12	80						0.5	
2SB829 2SD1065				15	90						0.5	
2SA1292 2SC3256	TO-3PML	80	60	15	80	2	1	70~280	7.5	375m	0.4	100
2SB1507 2SD2280				7	40						0.4	
2SB1508 2SD2281				60	50						12	
2SB1509 2SD2282				15	50				8	0.4	0.5	20

V_{CEO} 80V Series (hFE:Q,R,S)

2SB922 2SD1238	TO-3PB	90	80	12	80	2	1	70~280	6	0.6	0.5	20
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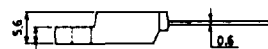
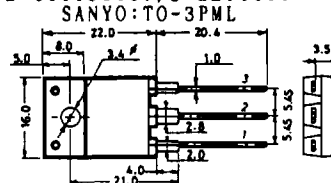
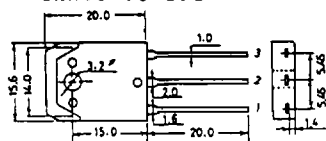
V_{CEO} 100V Series (hFE:P,Q)

2SB1230 2SD1840	TO-3PB	110	100	15	100	2	1.5	50~140	6	0.6	0.8	
2SB1231 2SD1841				25	120							2.5
2SB1232 2SD1842				40	150							4

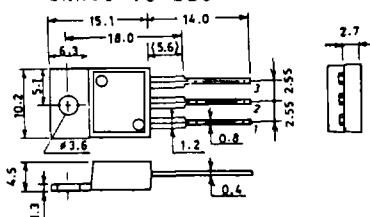
Classification by hFE.

50	P	100	70	Q	140	100	R	200	140	S	280
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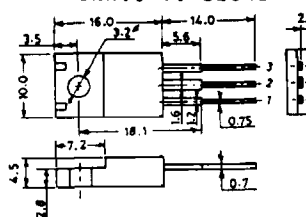
Case Outlines (unit: mm) 1: Base, 2: Collector, 3: Emitter
SANYO: TO-3PB



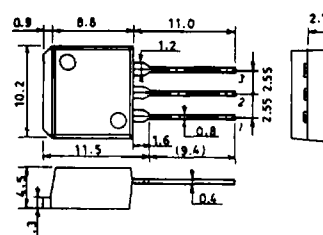
SANYO: TO-220



SANYO: TO-220ML



SANYO: TO-220MF



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