

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℃				Electrical Characteristics/Ta=25℃						
		V _{CBO} (V)	V _{CEO} (V)	I _C (A)	P _C T _c =25℃ (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	T0-220MF	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	T0-220			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	T0-220ML			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	T0-220	80	60	5	30	2	1	70~280	2.5	125mm	0.4 0.4	100		
2SA1290 2SC3254				7	35				3.5	175mm	0.4 0.4			
2SA1291 2SC3255				10	40				5	0.25	0.4 0.4			
2SA1469 2SC3746	T0-220ML			5	20				2.5	125mm	0.4 0.4			
2SA1470 2SC3747				7	25				3.5	175mm	0.4 0.4			
2SA1471 2SC3748				10	30				5	0.25	0.4 0.4			

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

2SB1270 2SD1906	T0-220MF	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	T0-220			5	30				3	0.3	0.5 0.4	
2SB921 2SD1237				7	40				4	0.4	0.5 0.4	
2SB1454 2SD2202	T0-220ML			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.

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

(For PNP, minus sign is omitted.)

Type No.	Package	Absolute Maximum Ratings/ $T_a=25^\circ\text{C}$				Electrical Characteristics/ $T_a=25^\circ\text{C}$						
		V_{CB0} (V)	V_{CE0} (V)	I_C (A)	P_C $T_c=25^\circ\text{C}$ (W)	V_{CE} (V)	I_C (A)	h_{FE}	I_C (A)	I_B (A)	$V_{CE(sat)}$ $I_C=I_B$ (V)	f_T $I_C=I_B$ (MHz)
2SB904 2SD1213	TO-3PB	60	30	20	60	2	1	70~280	8	0.4	0.5 0.4	120
2SB1511 2SD2285	TO-3PML			20	40						0.5 0.4	

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

2SB827 2SD1063	TO-3PB	60	50	7	60	2	1	70~280	4	0.4	0.4 0.4	10
2SB828 2SD1064				12	80				6	0.3	0.5 0.4	10
2SB829 2SD1065				15	90				8	0.4	0.5 0.4	20
2SA1292 2SC3256	TO-3PML	80	60	15	80	2	1	70~280	7.5	375m	0.4 0.4	100
2SB1507 2SD2280		60	50	7	40				4	0.4	0.4 0.4	10
2SB1508 2SD2281				12	45				6	0.3	0.5 0.4	10
2SB1509 2SD2282				15	50				8	0.4	0.5 0.4	20

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

2SB922 2SD1238	TO-3PB	90	80	12	80	2	1	70~280	6	0.6	0.5 0.4	20
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VCEO 100V Series (hFE:P,Q)

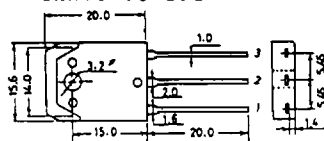
2SB1230 2SD1840	TO-3PB	110	100	15	100	2	1.5	50~140	6	0.6	0.8	
2SB1231 2SD1841				25	120		2.5		10	1		
2SB1232 2SD1842				40	150		4		16	1.6		

Classification by hFE.

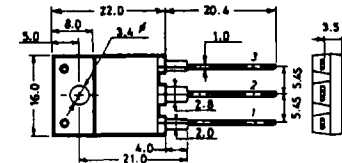
50	P	100	70	Q	140	100	R	200	140	S	280
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Case Outlines (unit: mm) 1: Base, 2: Collector, 3: Emitter

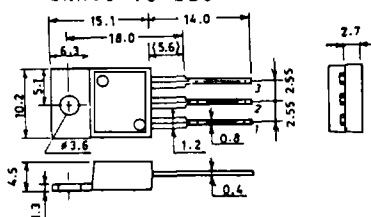
SANYO: TO-3PB



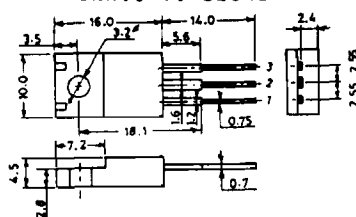
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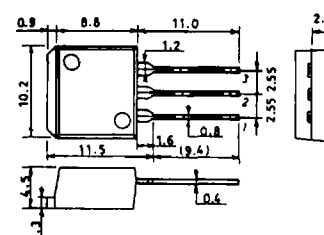
SANYO: TO-220



SANYO: TO-220ML



SANYO: TO-220MF



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