

# Transistors (Selection Guide by Applications and Functions)

## ■ Silicon Large Power Transistors

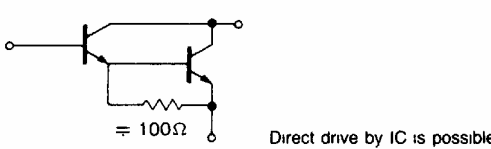
Application Functions	V <sub>CEO</sub> (V)	I <sub>c</sub> (A)	V <sub>CE(sat)</sub> (V)			Package (No.)	
				I <sub>c</sub> (A)	I <sub>B</sub> (mA)	TOP-3(a) (D64)	TOP-3F(a) (D67)
General-use	50	7	<0.8	7	700	2SA1185	
	100	5	<2	3	300		2SB1054/2SD1485
	140	7	<2	5	500	2SB1421	
Low V <sub>CE(sat)</sub>	80	10	0.2	6	300		2SB1154/2SD1705
		15	0.2	7	350		2SB1155/2SD1706
		20	0.25	8	400		2SB1156/2SD1707
Darlington	150	6	<1.5	3	60		2SD1457
	200	6	<1.5	3	60		2SD1457A
	400	20	<2.0	20	800		2SC4535
High-h <sub>FE</sub>	55	4	<2	0.5	2	2SD1641	
	60	10	<0.5	5	100		2SD1831
	80/100	3	<1	2	50		2SD1643/A

## ■ Silicon Power Transistors for Audio

### ● Single

Application	V <sub>CEO</sub> (V)	I <sub>c</sub> (A)	V <sub>CE(sat)</sub> (V)			P <sub>c</sub> (W)	Package (No.)		
				I <sub>c</sub> (A)	I <sub>B</sub> (mA)		TOP-3(a) (D64)	TOP-3F(a) (D67)	TOP-3L (D71)
Audio output	120	6	<2	4	400	70		2SB1371/2SD2064	
	140	7	<2	5	500	80	2SB1421/2SD2140	2SB1372/2SD2065	
	150	9	<2	7	700	100	2SB1362/2SD2053	2SB1361/2SD2052	
	160	12	<1.8	8	120	120			2SB1419
	160	12	<2	8	800	120	2SB1373/2SD2066		2SB1347/2SD2029 2SB1528/2SD2327
	180	15	<2.5	10	1(A)	150			2SB1317/2SD1975 2SB1529/2SD2328

### ● Darlington

Application	V <sub>CEO</sub> (V)	I <sub>c</sub> (A)	V <sub>CE(sat)</sub> (V)			P <sub>c</sub> (W)	Package (No.)			
				I <sub>c</sub> (A)	I <sub>B</sub> (mA)		TO-220(F)(a)(D59)	TOP-3(a)(D64)	TOP-3F(a)(D67)	TOP-3L(D71)
Audio output (incl. driver) Darlington	80	3	<2.5	2	2	35	2SB1250/2SD1890			2SB1500/2SD2273
	90	4	<3	3	3	40	2SB1251/2SD1891			2SB1501/2SD2274
	100	5	<2.5	4	4	45	2SB1252/2SD1892			2SB1502/2SD2275
	110	6	<2.5	5	5	50			2SB1253/2SD1893	2SB1492/2SD2254
	130	6	<2.5	5	5	50		2SB1531/2SD2340		
	140	7	<2.5	6	6	70		2SB1493/2SD2255	2SB1254/2SD1894	2SB1490/2SD2250
	140	8	<2.5	7	7	100		2SB1469/2SD2221	2SB1255/2SD1895	2SB1503/2SD2276
Equivalent circuit	 <p style="text-align: center;">= 100Ω      Direct drive by IC is possible</p>									

Complementary pair marked/between products (Ex. 2SB1054/2SD1485)

(Package Symbol) TO-220(F) = TO-220 Type Full Pack Package, TOP-3F = TOP-3 Type Full Pack Package, TOP-3L = TOP-3 Type Large Package