

LOW-SATURATION VOLTAGE TR SERIES (Small-Signal Transistors. NO.1)

The low-saturation voltage TR series, being excellent in VCE(sat) and switching characteristic at high current, are suited for use in inverters, converters, power amplifiers, electrical equipment.
We have a full lineup of new products fabricated using Sanyo's original MBIT process technology. They can be applied to various uses because of high quality and small-sized package.

Features

- ◆ Large current capacity.
- ◆ Low saturation voltage.
- ◆ Short switching time.
- ◆ Highly resistant to breakdown.
- ◆ Low noise design.
- ◆ Possible to make sets smaller.

Application areas

- * Radio cassette recorders, electronic governors, strobes, cameras, relay drivers, lamp drivers, audio circuits, hammer drivers, voltage regulators, fluorescent lamps, motor drivers, video equipment, microcomputers peripheral.

In addition to the above, the low-saturation voltage TR, Large signal TR series and PCP/5, NMP : package series are available.

(*) MBIT process technology "New manufacturing method, Multi Base Island Transistors"

*: Tc=25°C. ☆: Mounted on PCB (250mm²×0.8mm).

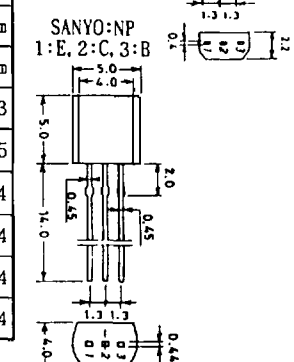
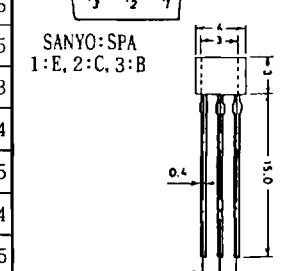
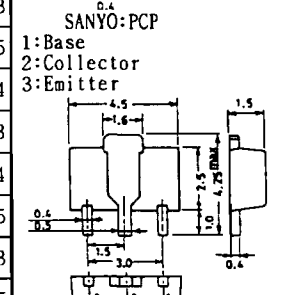
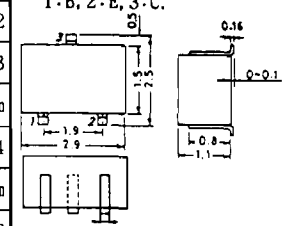
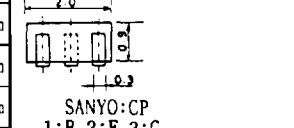
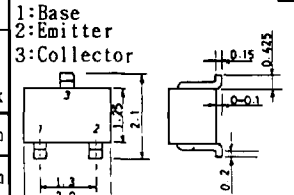
●: Contains base to emitter resistance (RBE).

For PNP, (-) sign is omitted.

Type No. PNP/NPN	Pack- age	Absolute Maximum Ratings/Ta=25°C				Electrical Characteristics/Ta=25°C							
		V _{CBO} (V)	V _{CEO} (V)	I _C (A)	P _C (W)	V _{CE} (V)	I _C (A)	h _{FE}	I _C (A)	I _B (A)	V _{CE(sat)} typ (V)	max	
2SA1745/2SC4555	MCP	20	15	0.5	0.15	2	10m	135-600	5m	0.5m	15m	35m/30m	
2SA1753/2SC4577	CP	20	15	0.5	0.2	2	10m	135-600	5m	0.5m	15m	35m/30m	
2SA1881/2SC4983		15	15	1	0.25	2	50m	135-600	5m	0.5m	10m	25m	
2SB815/2SD1048		20	15	0.7	0.2	2	50m	200-600/200-900	5m	0.5m	15m/10m	35m/25m	
2SB1295/2SD1935		15	15	0.8	0.2	2	50m	135-600/135-900	5m	0.5m	10m	25m	
/2SD2028		11±3	0.7	0.2	2	50m	200-900	0.1	10m	50m	0.12		
●2SB1527/2SD2324		20	15	0.8	0.2	2	0.5	min70 ●RBE=typ1kΩ	0.5	10m	0.2/0.16	0.4/0.3	
2SA1882/2SC4984		15	15	1.5	☆1.3	2	50m	140-560	5m	0.5m	10m	25m	
2SA1896		25	20	2.5	☆1.3	2	0.5	140-400	1.5	30m	0.22	0.4	
2SB1118/2SD1618		20	15	0.7	☆1.3	2	50m	140-560	5m	0.5m	15m/10m	35m/25m	
2SB1119/2SD1619		25	25	1	☆1.3	2	50m	100-560	0.5	50m	0.15/0.1	0.7/0.3	
2SB1120	20	10	2.5	☆1.3	2	0.5	100-560	1.5	0.15	0.25	0.45		
2SB1121/2SD1621*	30	25	2	☆1.3	2	0.1	100-560	1.5	75m	0.35/0.18	0.6/0.4		
2SB1122/2SD1622*	60	50	1	☆1.3	2	0.1	100-560	0.5	50m	0.18/0.12	0.5/0.3		
2SB1123/2SD1623*	60	50	2	☆1.3	2	0.1	100-560	1	50m	0.3/0.15	0.7/0.4		
2SB1124/2SD1624*	60	50	3	☆1.5	2	0.1	100-560	2	0.1	0.35/0.19	0.7/0.5		
●2SB1323/2SD1997	40	30	3	☆1.5	2	0.5	min70●RBE=typ0.8kΩ	1	50m	0.18/0.12	0.4/0.3		
●2SB1324/2SD1998	40	30	3	☆1.5	2	0.5	min70●RBE=typ0.8kΩ	2	0.1	0.25/0.2	0.6/0.5		
●2SB1325/2SD1999	25	20	4	☆1.5	2	0.5	min70●RBE=typ1.5kΩ	3	0.15	0.25	0.5		
●2SB1394/2SD2099	40	30	3	☆1.5	2	0.5	min70●RBE=typ0.8kΩ	1	50m	0.18/0.12	0.4/0.3		
2SB1396*	15	10	3	☆1.3	2	0.5	140-560	1.5	30m	0.22	0.4		
●2SB1397/2SD2100	25	20	2	☆1.3	2	0.5	min70●RBE=typ1.6kΩ	1	50m	0.25	0.5		
2SD1620	30	10	3	☆1.3	2	3	typ210	3	60m	0.3	0.4		
2SD1628	60	20	5	☆1.5	2	0.5	120-560	3	60m		0.5		
2SB808/2SD1012	SPA	20	15	0.7	0.25	2	50m	160-560/160-960	5m	0.5m	15m/10m	35m/25m	
2SB1296/2SD1936		15	15	0.8	0.3	2	50m	140-560/140-800	5m	0.5m	10m	25m	
2SB698/2SD734	NP	25	20	0.7	0.6	2	50m	60-560	0.5	50m	0.2/0.13	0.45/0.3	
2SB893		20	10	2.5	0.75	2	0.5	100-560	1.5	0.15	0.25	0.45	
2SB926/2SD1246*		30	25	2	0.75	2	0.1	100-560	1.5	75m	0.35/0.18	0.6/0.4	
2SB1229/2SD1835*		60	50	2	0.75	2	0.1	100-560	1	50m	0.3/0.15	0.7/0.4	
2SB1395*		15	10	3	0.75	2	0.5	140-560	1.5	30m	0.22	0.4	
2SD879		30	10	3	0.75	2	3	typ210	3	60m	0.3	0.4	

Case Outlines

(unit:mm)
SANYO:MCP



These specifications are subject to change without notice.

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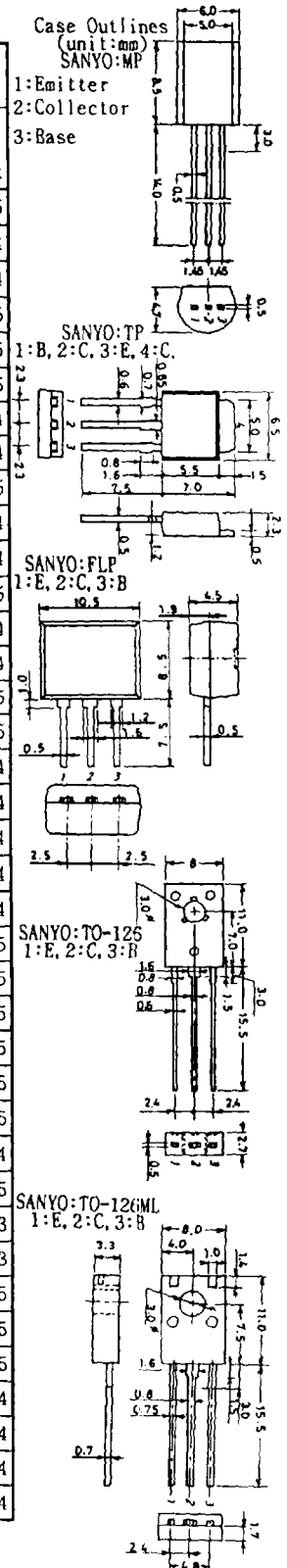
LOW-SATURATION VOLTAGE TR SERIES (Small-Signal Transistors. NO.2)

(*)MBIT process technology "New manufacturing method, Multi Base Island Transistors"

※:Tc=25°C. ●:Contains base to emitter resistance(RBE).

For PNP, (-) sign is omitted.

Type No. PNP/NPN	Package	Absolute Maximum Ratings/Ta=25°C				Electrical Characteristics/Ta=25°C							
		V _{CEO} (V)	V _{CE0} (V)	I _C (A)	P _C (W)	V _{CE} (V)	I _C (A)	h _{FE}	I _C (A)	I _B (A)	V _{CE(sat)} typ (V)	max (V)	
2SB764/2SD863	MP	60	50	1	0.9	2	50m	60-320	0.5	50m	0.2/0.15	0.7/0.5	
2SB892/2SD1207*		60	50	2	1	2	0.1	100-560	1	50m	0.3/0.15	0.7/0.4	
2SB927/2SD1247*		30	25	2.5	1	2	0.1	100-560	1.5	75m	0.35/0.18	0.6/0.4	
2SB985/2SD1347*		60	50	3	1	2	0.1	100-560	2	0.1	0.35/0.19	0.7/0.5	
2SB1131*		25	20	5	1	2	0.5	100-400	3	60m	0.25	0.5	
2SD1145		60	20	5	0.9	2	0.5	100-560	3	60m	P=1.0, 0.5		
2SA1641/2SC4306*	TP	25/30	20	8	※15	2	0.5	100-400	5	0.25	0.22	0.4	
2SB1201/2SD1801*		60	50	2	※15	2	0.1	100-560	1	50m	0.3/0.15	0.7/0.4	
2SB1202/2SD1802*		60	50	3	※15	2	0.1	100-560	2	0.1	0.35/0.19	0.7/0.5	
2SB1203/2SD1803*		60	50	5	※20	2	0.5	70-400	3	0.15	0.28/0.22	0.55/0.4	
2SB1204/2SD1804*		60	50	8	※20	2	0.5	70-400	4	0.2	0.25/0.2	0.5/0.4	
2SB1205*		25	20	5	※10	2	0.5	100-400	3	60m	0.25	0.5	
2SB1215/2SD1815*		120	100	3	※20	5	0.5	70-400	1.5	0.15	0.2/0.15	0.5/0.4	
2SB1216/2SD1816*		120	100	4	※20	5	0.5	70-400	2	0.2	0.2/0.15	0.5/0.4	
2SD1805		60	20	5	※15	2	0.5	120-560	3	60m	0.22	0.5	
●2SD1806		40	30	2	※15	0.5	0.5	min50 ●RBE=typ1kΩ	2	40m	0.25	0.5	
2SA1823/2SC4727*		FLP	25/30	20	8	1.5	2	0.5	100-400	5	0.25	0.22	0.4
2SA1824/2SC4728*			60	50	5	1.5	2	0.5	100-400	3	0.15	0.28/0.22	0.55/0.4
2SA1825/2SC4729*			60	50	8	1.5	2	0.5	100-400	4	0.2	0.25/0.2	0.5/0.4
2SA1826/2SC4730*			120	100	3	1.5	5	0.5	100-400	1.5	0.15	0.2/0.15	0.5/0.4
2SA1827/2SC4731*	120		100	4	1.5	5	0.5	100-400	2	0.2	0.2/0.15	0.5/0.4	
2SA1854*	25		20	5	1.5	2	0.5	100-400	3	0.06	0.25	0.5	
2SC4836	60		20	5	1.5	2	0.5	120-560	3	0.06		0.5	
2SA1855/2SC4837*	60		50	4	1.5	2	0.1	100-400	2	0.1	0.35/0.19	0.7/0.5	
2SB986/2SD1348*	TO-126		60	50	4	※10	2	0.1	100-560	2	0.1	0.35/0.19	0.7/0.5
2SB1127*			25	20	5	※10	2	0.5	100-400	3	60m	0.25	0.5
2SD826		60	20	5	※10	2	0.5	120-560	3	60m	P=1.0, 0.5		
2SA1798/2SC4675*	TO-126 ML	25/30	20	8	※10	2	0.5	100-400	5	0.25	0.22	0.4	
2SB1140*		25	20	5	※10	2	0.5	100-400	3	60m	0.25	0.5	
2SB1141/2SD1681		20	18	1.2	※10	2	0.1	70-400	0.5	50m	0.17/0.12	0.4/0.3	
2SB1142/2SD1682*		60	50	2.5	※10	2	0.1	100-400/100-560	1	50m	0.25/0.11	0.5/0.3	
2SB1143/2SD1683*		60	50	4	※10	2	0.1	100-560	2	0.1	0.35/0.19	0.7/0.5	
2SB1144/2SD1684*		120	100	1.5	※10	5	0.1	100-400	0.5	50m	0.1/0.18	0.3/0.5	
2SD1685		60	20	5	※10	2	0.5	120-560	3	60m	0.22	0.5	
2SB1165/2SD1722*	TO-126 LP	60	50	5	※20	2	0.5	70-400	3	0.15	0.28/0.22	0.55/0.4	
2SB1166/2SD1723*		60	50	8	※20	2	0.5	70-400	4	0.2	0.25/0.2	0.5/0.4	
2SB1167/2SD1724*		120	100	3	※20	5	0.5	70-400	1.5	0.15	0.2/0.15	0.5/0.4	
2SB1168/2SD1725*		120	100	4	※20	5	0.5	70-400	2	0.2	0.2/0.15	0.5/0.4	



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