

TO-92L • TO-92LS • MRT

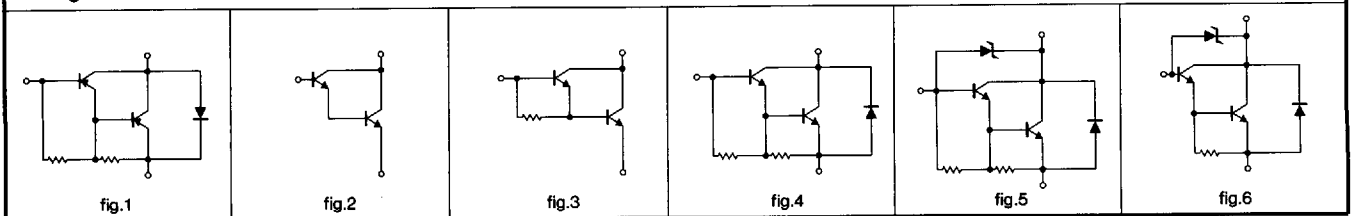
TO-92L is a high power version of TO-92 and TO-92LS is a slimmed TO-92L.

MRT is a 1.2W package power taped transistor designed for use with an automatic placement machine.

Application	Package			V_{CE0} (V) * V_{CES}	I_c (A)	I_c Max. (A)	P_c (W) ($T_a=25^\circ\text{C}$)			h_{FE}	V_{CE} (V)	I_c (mA)	Internal circuit
	TO-92L	TO-92LS	MRT				TO-92L	TO-92LS	MRT				
	Part No.												
Low Noise	-	2SA1819	-	-150	-0.05	-	-	0.8	-	120~390	-6	-2	-
	-	2SC4720	-	-150	0.05	-	-	0.8	-	120~390	6	2	-
Driver	2SA934	2SA1818	2SB1329	-32	-1	-2	0.75	0.9	1.2	82~390	-3	-100	-
	2SA935	2SA1902	2SB1330	-80	-0.7	-	0.75	0.9	1.2	82~390	-3	-100	-
	2SB1010	2SB1595	2SB1331	-32	-2	-3	0.75	0.9	1.2	82~390	-3	-500	-
	2SB1041	-	2SB1332	-80	-1	-	0.9	-	1.2	82~390	-3	-100	-
	2SB1043	-	-	-50	-1	-	0.9	-	-	82~390	-3	-100	-
	2SB1212	2SB1596	2SB1328	-160	-1.5	-	0.9	0.9	1.2	56~270	-5	-100	-
	2SB1425	-	-	-20	-2	-3	1.0	-	-	270~1200	-6	-500	-
	-	-	2SB1517	-50	-3	-	-	-	1.2	56~390	-3	-500	-
	2SC2060	2SC4719	2SD2005	32	1	2	0.75	0.9	1.2	82~390	3	100	-
	2SC2061	2SC5061	2SD2006	80	0.7	1	0.75	0.9	1.2	82~390	3	100	-
	2SD1292	-	2SD2008	80	1	2	0.9	-	1.2	82~390	3	500	-
	2SD1384	2SD2450	2SD2007	32	2	2.5	0.75	0.9	1.2	82~390	3	500	-
	2SD1812	2SD2451	2SD2004	160	1.5	-	0.9	0.9	1.2	56~270	5	100	-
	-	-	2SD2146	50	3	-	-	-	1.2	56~390	3	500	-
Low $V_{CE(sat)}$	-	2SA1903	-	-20	-3	-	-	0.9	-	82~390	-2	-100	-
	2SB1374	2SA1820	-	-50	-2	-5	1.0	0.9	-	82~270	-2	-500	-
	-	2SC5062	-	20	3	-	-	0.9	-	120~560	2	100	-
	2SD2069	2SC4721	-	50	2	5	1.0	0.9	-	82~270	2	500	-
High Voltage Driver	2SA1482	-	-	-150	-0.05	-	0.8	-	-	120~390	-6	-2	-
	2SC3800	-	-	150	0.05	-	0.8	-	-	120~390	6	2	-
Strobo Flash Low $V_{CE(sat)}$	2SB1306	-	2SB1482	-20	-5	-10	1.2	-	1.2	82~390	-2	-500	-
	2SD1961	-	-	20	5	10	1.2	-	-	120~560	2	500	-
Chroma	2SC3269	2SC4722	2SC4243	300	0.1	-	0.75	0.8	1.0	39~180	10	10	-
High h_{FE}	2SB1425	-	2SB1461	-20	-2	-3	1.0	-	1.2	270~1200	-6	-500	-
	2SD2159	-	-	25	2	3	1.0	-	-	390~2700	6	500	-
High h_{FE} High V_{EBO}	2SD2172	-	-	25	1.2	2	1	-	-	560~2700	5	500	-
Darlington	2SB1256	-	2SB1333	-100	-2	-	1.2	-	1.2	1k~10k	-2	-1000	Fig.1
	-	-	2SB1515	-80	-4	-	-	-	1.2	1k~10k	-3	-2000	Fig.1
	2SD1809	-	2SD2009	60*	1	-	0.9	-	1.2	2k~	3	500	Fig.2
	2SD1929	-	2SD2010	60±10	2	-	1.2	-	1.2	1k~10k	2	1000	Fig.5
	2SD1930	-	2SD2011	100	2	-	1.2	-	1.2	1k~10k	2	1000	Fig.4
	-	-	☆2SC4724	100	3	5	-	-	1.2	2k~10k	2	1500	Fig.4
	2SD1931	-	-	60±10	1.5	-	0.9	-	-	1k~30k	2	1000	Fig.6
	-	-	2SD2308	80	4	-	-	-	1.2	1k~10k	3	2000	Fig.4
Darlington Driver	-	-	2SD2309	60	4	-	-	-	1.2	1k~10k	3	2000	Fig.3
	-	-	2SD2388	90 ⁺²⁰ ₋₁₀	2	3	-	-	1.2	1k~10k	2	1000	Fig.5
High Voltage SW	2SA1584	-	-	-400	-0.1	-0.2	0.9	-	-	56~270	-10	-10	-
	2SA1780	2SA1884	2SA1809	-400	-0.5	-1	0.9	0.9	1.2	56~270	-5	-50	-
	2SA1760	-	-	-400	-0.1	-0.2	0.9	-	-	56~270	-10	-10	-
	-	-	2SA1861	-400	-2	-4	-	-	1.2	56~180	-5	-100	-
	2SC4166	-	-	400	0.1	-	0.9	-	-	56~270	10	10	-

Note : ☆ Under development

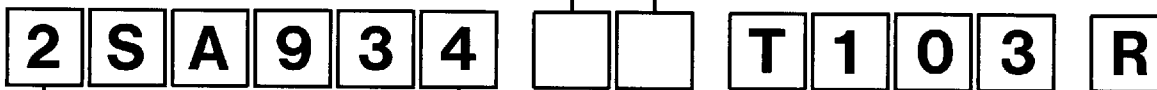
Darlington transistor Internal circuit



●Product Designation

Specify part No., packaging specification code and h_{FE} ranking code.

Blank unless otherwise required



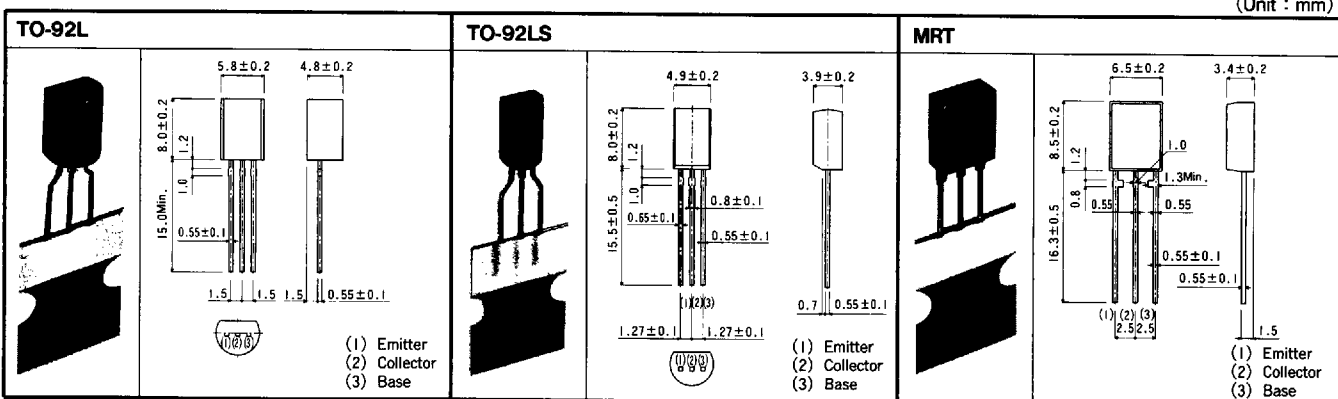
Part No.

Packaging specification code

h_{FE} Ranking code

Code	Package	Package specifications	Quantity/Package (pcs)
T103	TO-92L	Ammo box	2,500
-		Bulk	500
TE4	TO-92LS	Ammo box	3,000
-		Bulk	1,000
T105	MRT	Ammo box	2,000

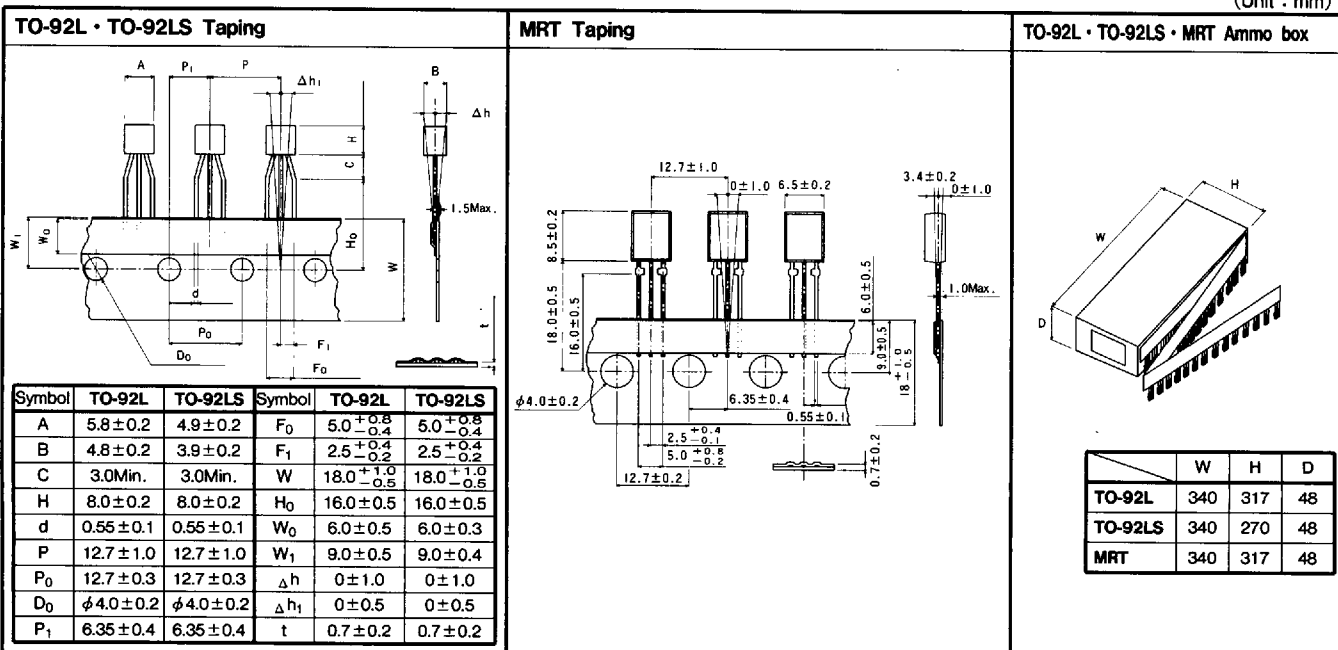
Code	h _{FE} Range	Code	h _{FE} Range
L	27~56	E	390~820
M	39~82	U	560~1200
N	56~120	V	820~1800
P	82~180	W	1200~2700
Q	120~270	A	1k~
R	180~390	B	5k~
S	270~560	C	10k~



Magazine taping of TO-92L and TO-92LS : lead formed as shown below.

●Packaging Specifications

(Unit : mm)



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