

# Transistors

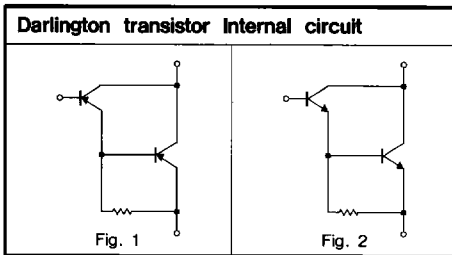
## FTR • FTL

Low profile flat-pack for limited space applications.

Taped type can be used on automated line. Bulk type is also available.

Application	Package		V <sub>CEO</sub> (V) *V <sub>CES</sub> **V <sub>CER</sub>	I <sub>c</sub> (mA)	I <sub>c</sub> Max. (A)	P <sub>c</sub> (mW) (T <sub>a</sub> =25°C)	h <sub>FE</sub>	V <sub>CE</sub> (V)	I <sub>c</sub> (mA)	Internal circuit
	FTR	FTL								
	Part No.									
Low Noise	2SA937ALN	—	—50	—150	—	300	180~560	—6	—1	—
	2SB821	☆2SB1276	—40	—300	—	250	120~560	—6	—10	—
	2SC1613A	☆2SC4034	80	50	—	150	120~560	3	5	—
	2SC2021LN	—	40	150	—	300	390~820	6	1	—
Pre Amp	2SA785	2SA1554	—80**	—50	—	150	82~270	—3	—10	—
	2SA937A	2SA1561A	—50	—150	—	300	82~390	—6	—1	—
	2SC2021	2SC4038	40	150	—	300	390~820	6	1	—
			50	150	—	300	120~560	6	1	—
2SC4775	2SC4777	25	100	200	400	180~560	6	1	—	
Driver	2SA874	2SA1559	—32	—500	—	300	82~390	—3	—100	—
	2SA881	2SA1560	—32	—1000	—	600	82~390	—3	—100	—
	2SB822	2SB1277	—32	—2000	—3000	750	82~390	—3	—500	—
	2SB851	2SB1278	—80	—700	—	750	82~390	—3	—100	—
	2SB1199	2SB1279	—15	—200	—	300	56~	—3	—100	—
	2SC1652	2SC4037	32	500	—	400	82~390	3	100	—
	2SC2673	2SC4040	32	1000	—	600	82~390	3	100	—
	2SD1055	2SD1919	32	2000	2500	750	82~390	3	500	—
	2SD1787	2SD1921	50	500	—	400	82~390	3	100	—
	2SD2168	2SD2169	31±4	2000	3000	500	82~270	3	500	—
Low V <sub>CE(sat)</sub>	—	2SB1428	—20	—3000	—5000	600	82~390	—2	—100	—
	2SD1469	2SD1920	15	1000	—	600	120~560	3	100	—
	—	2SD2154	20	3000	5000	600	120~560	2	100	—
Indicator Driver High Voltage SW	2SA806	2SA1558	—210**	—30	—	150	56~270	—3	—5	—
	2SC1615	2SC4036	210**	30	—	150	56~270	3	5	—
Darlington	2SA790	2SA1555	—32*	—300	—1500	300	5k~	—5	—100	Fig. 1
	2SC1545	2SC4032	32*	300	1500	300	5k~	5	100	Fig. 2
High h <sub>FE</sub> High V <sub>EB0</sub>	2SD2145	2SD2191	20	500	1000	400	560~2700	3	10	—
	2SD2312	2SD2314	50	150	200	400	560~2700	5	1	—

Note : ☆Under development



## FTR • FTL High frequency type

Application	Package		V <sub>CEO</sub> (V)	I <sub>c</sub> (mA)	f <sub>r</sub> (MHz)	C <sub>ob</sub> (pF)	h <sub>FE</sub>	V <sub>CE</sub> (V)	I <sub>c</sub> (mA)
	FTR	FTL							
	Part No.								
FM IF AM RF	2SC2063	2SC4039	25	50	300	1.6	56~270	6	1
TV Tuner	2SC3080	2SC4041	19	50	1100	1.2	39~270	10	5
Mix. Osc.	2SC4045	—	11	50	3200	1.1	27~270	10	5

●Product Designation

Specify part No., packaging specification code and hFE ranking code.



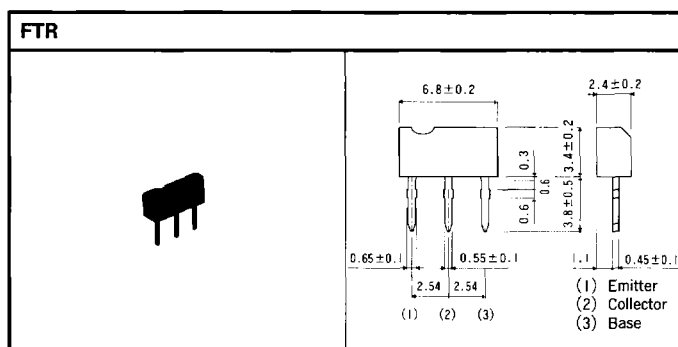
Part No. Blank unless otherwise required

Packaging specification code

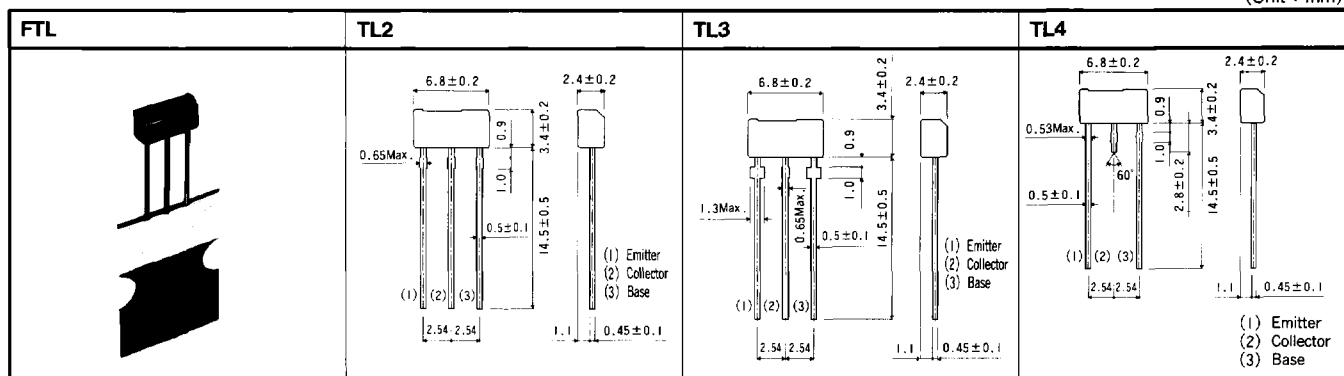
hFE Ranking code

Code	Package	Package specifications	Quantity /Package (pcs)
-	FTR	Bulk	2,000
C1		Tube	8,000 (80pcs x 100)
TL2			
TL3	FTL	Ammo box	2,500
TL4			

Code	hFE Range	Code	hFE 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~



(Unit : mm)



(Unit : mm)

●Packaging Specifications

