

# Transistors

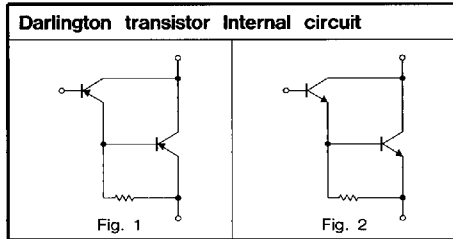
## FTR • FTL

Low profile flat-package 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>	h <sub>FE</sub> Ranking code	V <sub>CE</sub> (V)	I <sub>c</sub> (mA)	Internal circuit
	FTR	FTL									
	Part No.										
Low Noise	2SA937ALN	—	-50	-150	—	300	180~560	R S	-6	-1	—
	2SB821	☆2SB1276	-40	-300	—	250	120~560	Q R S	-6	-10	—
	2SC1613A	☆2SC4034	80	50	—	150	120~560	Q R S	3	5	—
	2SC2021LN	—	40	150	—	300	390~820	E	6	1	—
Pre Amp	2SA785	2SA1554	-80**	-50	—	150	82~270	P Q	-3	-10	—
	2SA937A	2SA1561A	-50	-150	—	300	82~390	P Q R	-6	-1	—
	2SC2021	2SC4038	40	150	—	300	390~820	E	6	1	—
	2SC4775	2SC4777	50	150	—	300	120~560	Q R S	6	1	—
Driver	2SA874	2SA1559	-32	-500	—	300	82~390	P Q R	-3	-100	—
	2SA881	2SA1560	-32	-1000	—	600	82~390	P Q R	-3	-100	—
	2SB822	2SB1277	-32	-2000	-3000	750	82~390	P Q R	-3	-500	—
	2SB851	2SB1278	-80	-700	—	750	82~390	P Q R	-3	-100	—
	2SB1199	2SB1279	-15	-200	—	300	56~	—	-3	-100	—
	2SC1652	2SC4037	32	500	—	400	82~390	P Q R	3	100	—
	2SC2673	2SC4040	32	1000	—	600	82~390	P Q R	3	100	—
	2SD1055	2SD1919	32	2000	2500	750	82~390	P Q R	3	500	—
	2SD1787	2SD1921	50	500	—	400	82~390	P Q R	3	100	—
	2SD2168	2SD2169	31±4	2000	3000	500	82~270	P Q	3	500	—
Low V <sub>CE(sat)</sub>	—	2SB1428	-20	-3000	-5000	600	82~390	P Q R	-2	-100	—
	2SD1469	2SD1920	15	1000	—	600	120~560	Q R S	3	100	—
	—	2SD2154	20	3000	5000	600	120~560	Q R S	2	100	—
Indicator Driver High Voltage SW	2SA806	2SA1558	-210**	-30	—	150	56~270	N P Q	-3	-5	—
	2SC1615	2SC4036	210**	30	—	150	56~270	N P Q	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	U V W	3	10	—
	2SD2312	2SD2314	50	150	200	400	560~2700	U V W	5	1	—

Note : ☆Under development

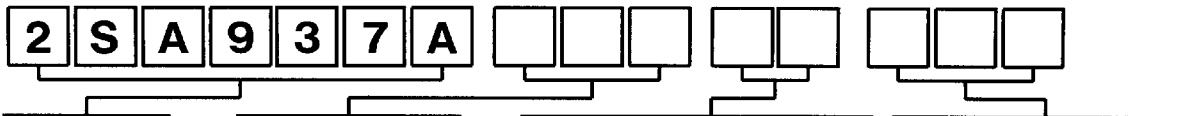


## FTR • FTL High frequency type

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>	h <sub>FE</sub> Ranking code	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	N P Q	6	1
TV Tuner Mix. Osc.	2SC3080	2SC4041	19	50	1100	1.2	39~270	M N P Q	10	5
	2SC4045	—	11	50	3200	1.1	27~270	L M N P Q	10	5

●Product Designation

- When ordering, specify the type.
- Check each code against the tables shown below.
- Fill a space with the next character.



Part No.

Special code

- Omit for standard product.
- Factory assigned for custom product.

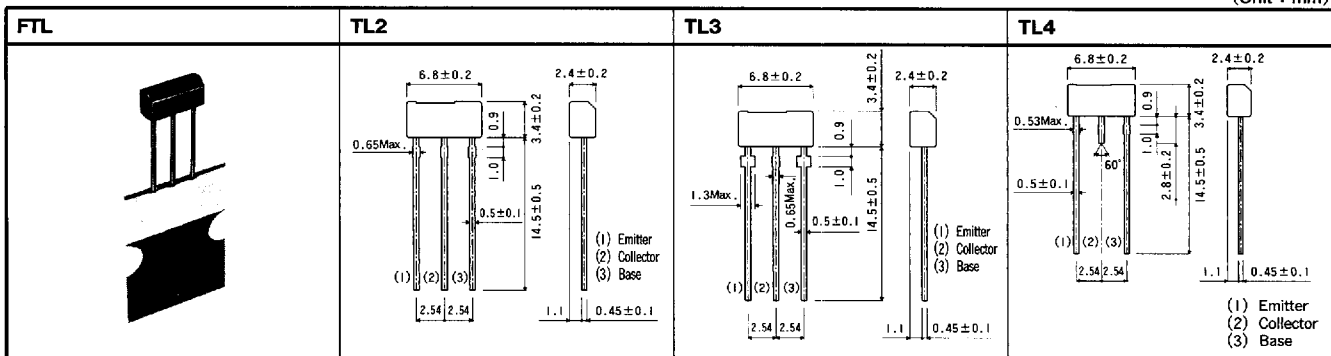
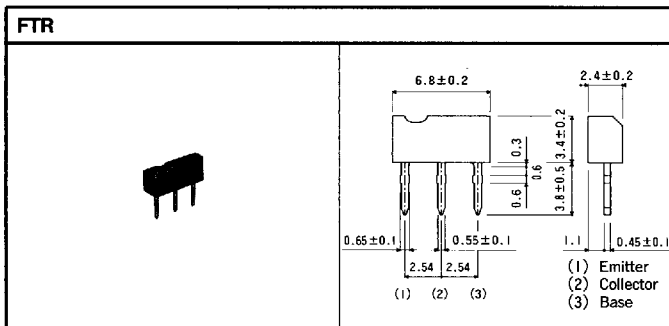
Packaging

Package	Code	Package specifications	Quantity / Package (pcs)
FTR	None	Bulk	2,000
	C1	Tube	8,000 (80pcs×100)
FTL	TL2	Ammo box	2,500
	TL3		
	TL4		

hFE Ranking code

Input hFE rank signal display  
 One rank preferred  P   
 Multiple rank preferred  P  R  
 (Min., Max. is displayed)

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~



●Packaging Specifications

