

Digital Transistors

FTR · FTL · ATR · ATV · SPT

●500mA Specifications

PNP Type Fig.1	NPN Type Fig.2	Resistance value		Package					V _{CC} (V)	I _C Max. (mA) *	G _I	V _O (V)	I _O (mA)
		R ₁ (kΩ)	R ₂ (kΩ)	FTR	FTL	ATR	ATV	SPT					
Part No.				Pd=300mW			Pd=600mW		Pd=300mW				
DTB113E□	DTD113E□	1.0	1.0	○	○	○	○	○	50	500	33~	5	50
DTB113Z□	DTD113Z□	1.0	10	○	○	○	○	○	50	500	56~	5	50
DTB114E□	DTD114E□	10	10	○	○	○	○	○	50	500	56~	5	50
DTB122J□	DTD122J□	0.22	4.7	○	○	○	○	○	50	500	47~	5	50
DTB123E□	DTD123E□	2.2	2.2	○	○	○	○	○	50	500	39~	5	50
DTB123Y□	DTD123Y□	2.2	10	○	○	○	○	○	50	500	56~	5	50
DTB133H□	DTD133H□	3.3	10	○	○	○	○	○	50	500	56~	5	50
DTB143E□	DTD143E□	4.7	4.7	○	○	○	○	○	50	500	47~	5	50
□ : Package code				F	L	A	V	S					

* Characteristics of element transistors

PNP Type Fig.3	NPN Type Fig.4	Resistance value R ₁ (kΩ)	Package					V _{CE0} (V)	I _C (mA)	h _{FE}			V _{CE} (V)	I _C (mA)
			FTR	FTL	ATR	ATV	SPT			Min.	Typ.	Max.		
Part No.			Pd=300mW			Pd=600mW		Pd=300mW						
DTB114T□	DTD114T□	10	○	○	○	○	○	40	500	100	250	600	5	50
DTB123T□	DTD123T□	2.2	○	○	○	○	○	40	500	100	250	600	5	50
DTB143T□	DTD143T□	4.7	○	○	○	○	○	40	500	100	250	600	5	50
DTB163T□	DTD163T□	6.8	○	○	○	○	○	40	500	100	250	600	5	50
□ : Package code			F	L	A	V	S							

PNP Type Fig.5	NPN Type Fig.6	B-E Resistance R ₂ (kΩ)	Package					V _{CE0} (V)	I _C (mA)	h _{FE} Min.	V _{CE} (V)	I _C (mA)
			FTR	FTL	ATR	ATV	SPT					
Part No.			Pd=300mW			Pd=600mW		Pd=300mW				
DTB114G□	DTD114G□	10	○	○	○	○	○	50	500	56	5	100
□ : Package code			F	L	A	V	S					

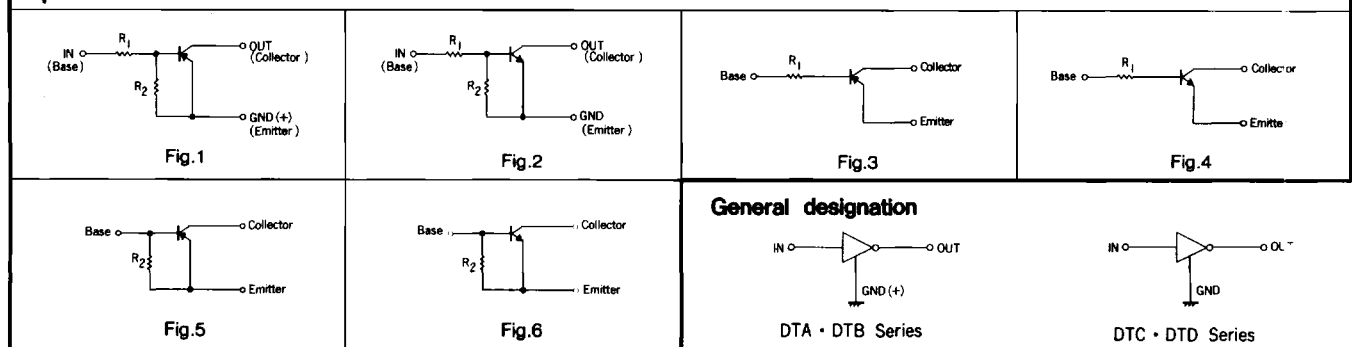
●For Muting

PNP Type -	NPN Type Fig.2	Resistance value		Package					V _{CC} (V)	I _C Max. (mA) *	G _I	V _O (V)	I _O (mA)	R _{on} (Ω) Typ.
		R ₁ (kΩ)	R ₂ (kΩ)	FTR	FTL	ATR	ATV	SPT						
Part No.				Pd=300mW			Pd=600mW		Pd=300mW					
-	DTC363E□	6.8	6.8	○	○	○	○	○	20	600	50	5	70~	1.1
□ : Package code				F	L	A	V	S						

* Characteristics of element transistors

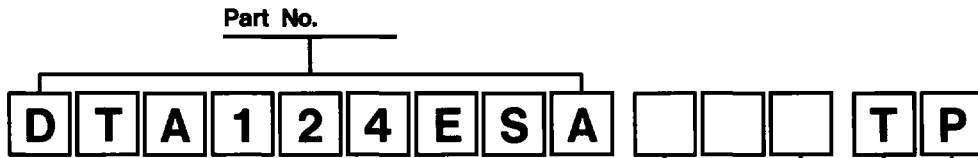
PNP Type -	NPN Type Fig.4	Resistance value R ₁ (kΩ)	Package					V _{CE0} (V)	I _C (mA)	h _{FE}			R _{on} (Ω) Typ.		
			FTR	FTL	ATR	ATV	SPT			Min.	Typ.	Max.			
Part No.			Pd=300mW			Pd=600mW		Pd=300mW							
-	DTC314T□	10	○	○	○	○	○	15	600	100	250	600	5	50	1.5
-	DTC323T□	2.2	○	○	○	○	○	15	600	100	250	800	5	50	0.65
-	DTC343T□	4.7	○	○	○	○	○	15	600	100	250	600	5	50	0.96
-	DTC363T□	6.8	○	○	○	○	○	15	600	100	250	600	5	50	1.25
□ : Package code			F	L	A	V	S								

Equivalent circuits



●Product Designation

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



Package code

Package	FTR	FTL	ATR	ATV	SPT
Code	F	L	A	V	S

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 x 100)
FTL	TL2	Ammo box	2,500
	TL3		
	TL4		
SPT	TP	Ammo box	5,000
	None	Bulk	2,000
ATR	None	Bulk	2,000
	C2	Tube	8,000 (80pcs x 100)
ATV	TV2	Ammo box	2,500
	TV3		
	TV4		
	TV4		

●Packaging Specifications

FTL · ATV taping

Code	FTL	ATV
A	8.8±0.2	8.8±0.2
B	2.4±0.2	2.5±0.2
C	—	—
H	3.4±0.2	4.4±0.2
d	0.5±0.1	0.5±0.1
P	12.7±1.0	12.7±1.0
P ₀	12.7±0.2	12.7±0.2
D ₀	φ4.0±0.2	φ4.0±0.2
P ₁	6.35±0.4	6.35±0.4
F ₀	5.08 ^{+0.8} _{-0.2}	5.08 ^{+0.8} _{-0.2}
F ₁	2.54 ^{+0.4} _{-0.1}	2.54 ^{+0.4} _{-0.1}
W	18.0 ^{+1.0} _{-0.5}	18.0 ^{+1.0} _{-0.5}
H ₀	17.1±0.5 ^{#2}	17.1±0.5 ^{#2}
H ₁	19.0±0.5 ^{#1}	19.0±0.5 ^{#1}
W ₀	6.0±0.5	6.0±0.5
W ₁	9.0±0.5	9.0±0.5
P ₂₀	1.0Max.	1.0Max.
Δh	0±1.0	0±1.0
Δh ₁	0±1.0	0±1.0
t	0.7±0.2	0.7±0.2

FTL · ATV · TO-92 · SPT Ammo box

	W	H	D
FTL	334	280	41
ATV	334	280	41
TO-92	340	282	40
SPT	330	232	40

TO-92 · SPT Taping

Code	TO-92	SPT
A	4.8±0.2	4.0±0.2
B	3.7±0.2	2.0±0.2
C	2.5Min.	3.0Min.
H	5.2Max.	3.0±0.2
d	0.5±0.1	0.45 ^{+0.15} _{-0.05}
P	12.7±0.5	12.7±1.0
P ₀	12.7±0.3	12.7±0.2
D ₀	φ4.0±0.2	φ4.0±0.2
P ₁	6.35±0.5	6.35±0.5
F ₀	5.0 ^{+0.8} _{-0.2}	5.0 ^{+0.8} _{-0.2}
F ₁	2.5 ^{+0.3} _{-0.1}	2.5 ^{+0.3} _{-0.1}
W	18.0 ^{+1.0} _{-0.5}	18.0 ^{+1.0} _{-0.5}
H ₀	16.0±0.5	16.0±0.5
H ₁	—	—
W ₀	6.0±0.5	6.0±0.5
W ₁	9.0±0.5	9.0±0.5
P ₂₀	1.0Max.	1.0Max.
Δh	0±1.0	0±1.0
Δh ₁	0±0.5	0±1.0
t	0.7±0.2	0.7±0.2

FTR Container tube

11.5

4.2

565

Packaging specification code : C1
Quantity/Package : 80 pcs

Digital Transistors

19980009

The Case and Marking Symbols Refer to Standard and Some Special Products Files