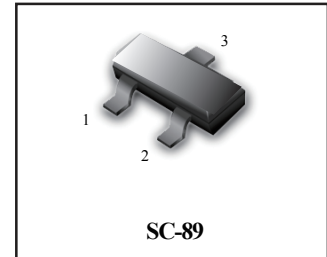


General Purpose Transistors

PNP Silicon

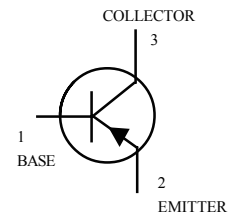
● **ORDERING INFORMATION**

Device	Marking	Shipping
FTA1774XT1G	FX	3000/Tape & Reel
FTA1774XT3G	FX	10000/Tape & Reel



● **Absolute maximum ratings (Ta=25°C)**

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CB0}	-60	V
Collector-emitter voltage	V _{CE0}	-50	V
Emitter-base voltage	V _{EB0}	-6	V
Collector current	I _c	-0.15	A (DC)
Collector power dissipation	P _c	0.15	W
Junction temperature	T _j	150	C
Storage temperature	T _{stg}	-55~+150	C



● **Electrical characteristics (Ta=25°C)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CB0}	-60	-	-	V	I _c =-50 μA
Collector-emitter breakdown voltage	BV _{CE0}	-50	-	-	V	I _c =-1 μA
Emitter-base breakdown voltage	BV _{EB0}	-6	-	-	V	I _E =-50 μA
Collector cutoff current	I _{CBO}	-	-	-0.1	μA	V _{CB} =-60V
Emitter cutoff current	I _{EBO}	-	-	-0.1	μA	V _{EB} =-6V
Collector-emitter saturation voltage	V _{CE(sat)}	-	-	-0.5	V	I _c /I _B =-50mA/-5mA
DC current transfer ratio	h _{FE}	120	-	560	-	V _{CE} =-6V, I _c =-1mA
Transition frequency	f _T	-	140	-	MHz	V _{CE} =-12V, I _E =2mA, f=30MHz
Output capacitance	C _{ob}	-	4.0	5.0	pF	V _{CB} =-12V, I _E =0A, f=1MHz

● **Device marking**

FTA1774QT1G=FQ	FTA1774ST1G=FS	FTA1774RT1G=FR
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● **h_{FE} values are classified as follows :**

Item	Q	R	S
h _{FE}	120~270	180~390	270~560

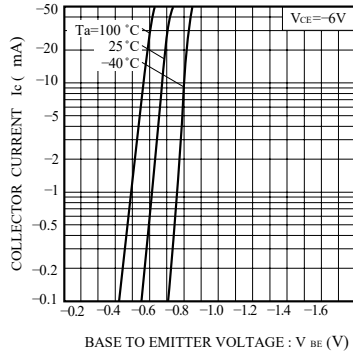


Fig.1 Grounded emitter propagation characteristics

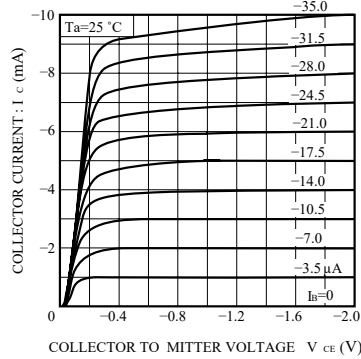


Fig.2 Grounded emitter output characteristics (I)

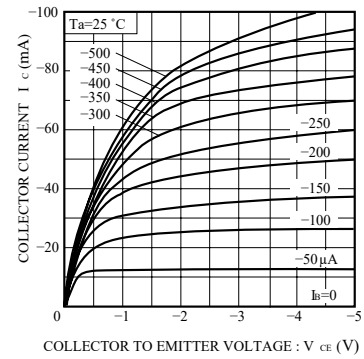


Fig.3 Grounded emitter output characteristics (II)

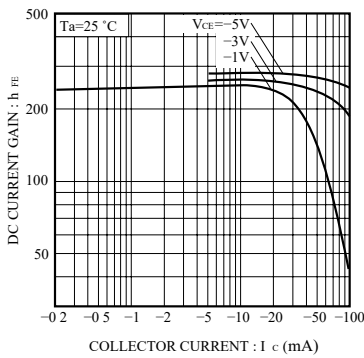


Fig.4 DC current gain vs. collector current (I)

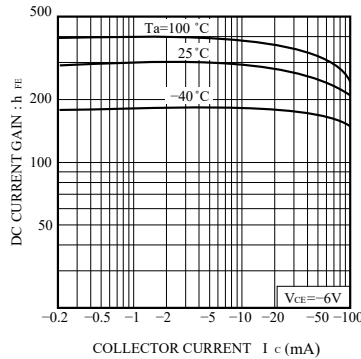


Fig.5 DC current gain vs. collector current (II)

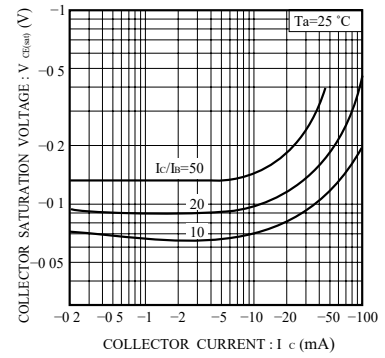


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

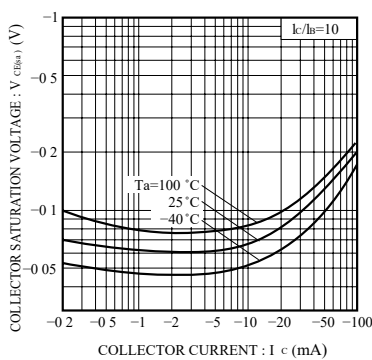


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

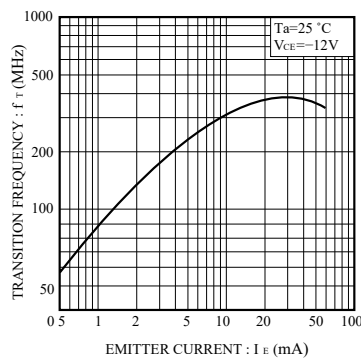


Fig.8 Gain bandwidth product vs. emitter current

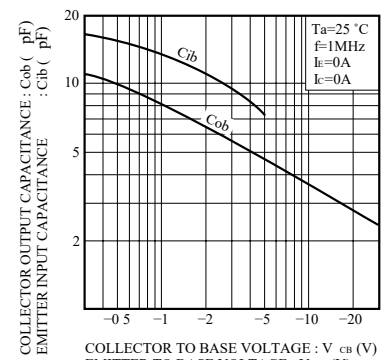
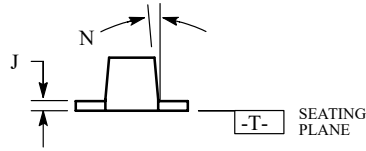
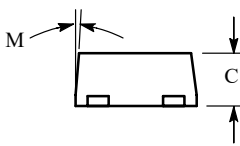
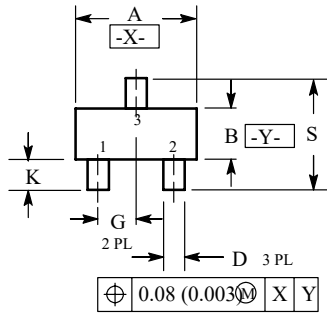


Fig.9 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

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NOTES:

- 1 DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982
- 2 CONTROLLING DIMENSION: MILLIMETERS
- 3 MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL
- 4 463C-01 OBSOLETE, NEW STANDARD 463C-02

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.50	1.60	1.70	0.059	0.063	0.067
B	0.75	0.85	0.95	0.030	0.034	0.040
C	0.60	0.70	0.80	0.024	0.028	0.031
D	0.23	0.28	0.33	0.009	0.011	0.013
G	0.50 BSC			0.020 BSC		
H	0.53 REF			0.021 REF		
J	0.10	0.15	0.20	0.004	0.006	0.008
K	0.30	0.40	0.50	0.012	0.016	0.020
L	1.10 REF			0.043 REF		
M	---	---	1 ϕ	---	---	10 ϕ
N	---	---	1 ϕ	---	---	10 ϕ
S	1.50	1.60	1.70	0.059	0.063	0.067

