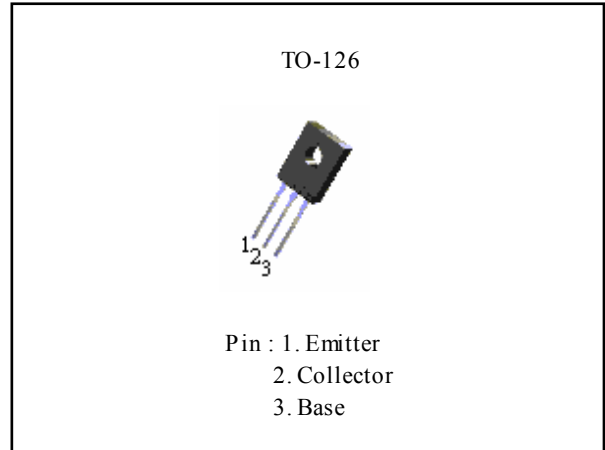


PNP Epitaxial Silicon Transistor

- Complementary pair with PJD669A
- *Value at Tc = 25°C

ABSOLUTE MAXIMUM RATINGS (TA = 25 °C)

Characteristic	Symbol	Rating	Unit
Collector to base voltage	V _{CBO}	-180	V
Collector to emitter voltage	V _{CEO}	-160	V
Emitter to base voltage	V _{EBO}	-5	V
Collector current	I _c	-1.5	A
Collector peak current	I _{C(peak)}	-3	A
Collector power dissipation	P _c	1	W
	P _c *	20	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C



ORDERING INFORMATION

Device	Operating Temperature	Package
PJB649ACK	-20°C ~ +85°C	TO-126

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

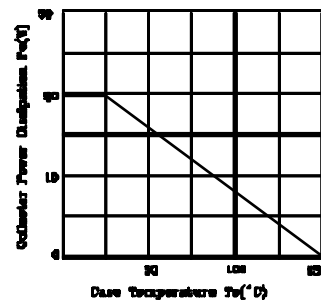
Characteristic	Symbol	Tes Condition	PJB649A			Unit
			Min	Typ	Max	
Collector to base breakdown voltage	V _{(BR)CBO}	I _C = -1mA, I _E = 0	-180	--	--	V
Collector to emitter breakdown voltage	V _{(BR)CEO}	I _C = -10mA, R _{BE} = ∞	-160	--	--	V
Emitter to base breakdown voltage	V _{(BR)EBO}	I _E = -1mA, I _C = 0	-5	--	--	V
Collector cutoff current	I _{CBO}	V _{CB} = -160V, I _E = 0	--	--	-10	μ A
DC Current transfer ratio	h _{FE1} *	V _{CE} = -5V, I _C = -150mA	60	--	200	
	h _{FE2}	V _{CE} = -5V, I _C = -500mA**	30	--	--	
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = -500mA, I _B = -50mA	--	--	-1	V
Base to emitter voltage	V _{BE}	V _{CE} = -5V, I _B = -150mA	--	--	-1.5	V
Gain bandwidth product	f _T	V _{CE} = -5V, I _C = -150mA	--	140	--	MHz
Collector output capacitance	C _{Ob}	V _{CB} = -10V, I _E = 0, f = 1MHz	--	27	--	pF

*The PJB649A are grouped by h_{FE1} as follows.

**Pulse Test

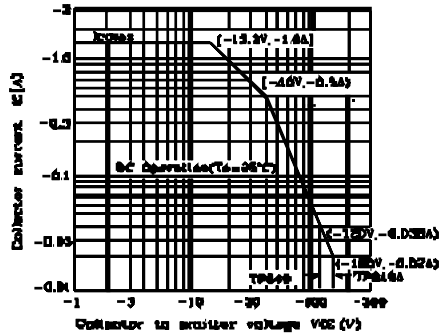
MAXIMUM COLLECTOR DISSIPATION CURVE

Classification	B	C	D
hFE(1)	60 to 120	100 to 200	--

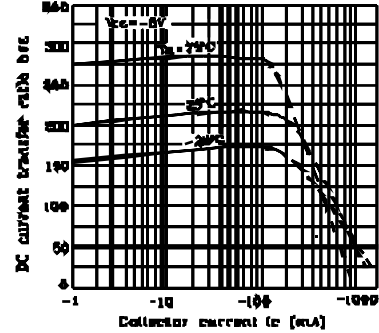


PNP Epitaxial Silicon Transistor

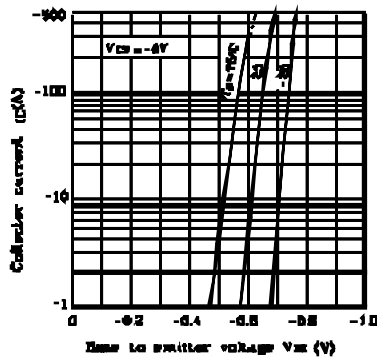
AREA OF SAFE OPERATION



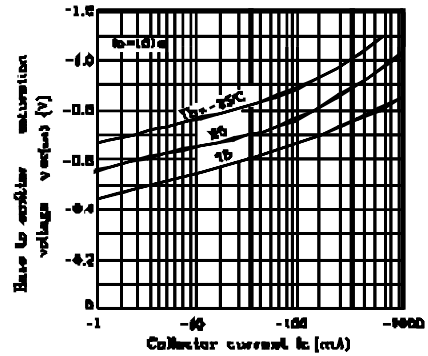
DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



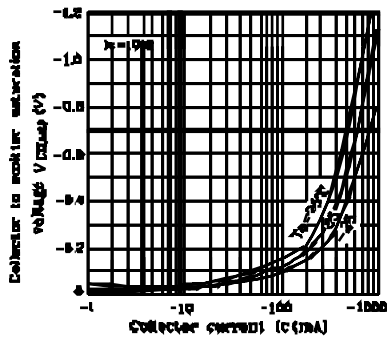
TYPICAL TRANSFER CHARACTERISTICS



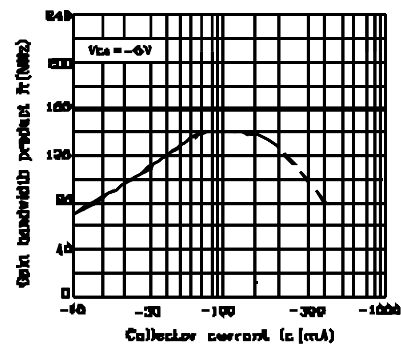
BASE TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



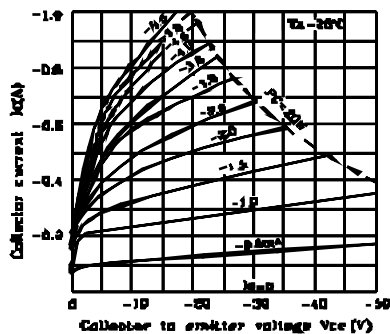
COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



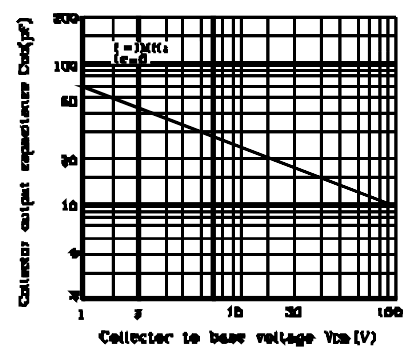
GAIN BANDWIDTH PRODUCT VS. COLLECTOR CURRENT



TYPICAL OUTPUT CHARACTERISTICS



COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE



TO-18 Unit:mm