〈SMALL-SIGNAL TRANSISTOR〉

2SA1286

FOR SMALL TYPE MOTOR, PLUNGER DRIVE APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

2SA1286 is silicon PNP epitaxial type transistor. Designed with high collector current and high h_{FE}.

Complementary with 2SC3246.

FEATURE

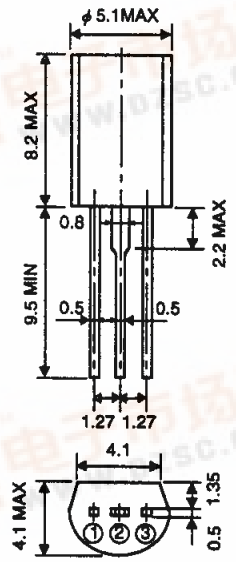
- High h_{FE} h_{FE}=400 to 800
- High collector current (I_C=-1.5A, I_{CM}=-3A)
- Low collector to emitter saturation voltage.
  $V_{CE(sat)}$=-0.25V typ(@I_C=-1A, I_B=-20mA)
- High collector dissipation P_C=900mW

APPLICATION

Small type motor drive plunger for VCR, tape deck, player, drive for relay, etc.

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

①: EMITTER
②: COLLECTOR EIAJ: —
③: BASE JEDEC: —

Note)
The dimension without tolerance represent central value.

MAXIMUM RATINGS (Ta=25℃)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	-30	V
V_{EBO}	Emitter to Base voltage	-6	V
V_{CEO}	Collector to Emitter voltage	-20	V
I_{CM}	Peak collector current	-3	A
I_C	Collector current	-1.5	A
P_C	Collector dissipation(Ta=25℃)	900	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	-55 to +150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	I_C=-10μA,I_E=0	-30			V
$V_{(BR)EBO}$	E to B break down voltage	I_E=-10μA,I_C=0	-6			V
$V_{(BR)CEO}$	C to E break down voltage	I_C=-1mA,R_{BE}=∞	-20			V
I_{CBO}	Collector cut off current	V_{CB}=-20V,I_E=0			-0.1	μA
I_{EBO}	Emitter cut off current	V_{EB}=-2V,I_C=0			-0.1	μA
h_{FE} *	DC forward current gain	V_{CE}=-6V,I_C=-500mA	400		800	—
$V_{CE(sat)}$	C to E saturation voltage	I_C=-1A,I_B=-20mA		-0.25	-0.5	V
f_T	Gain band width product	V_{CE}=-10V,I_E=10mA		90		MHz
C_{ob}	Collector output capacitance	V_{CB}=-10V,I_E=0, f=1MHz		37		pF

* : It shows h_{FE} classification in right table.

Item	G
h_{FE}	400 to 800

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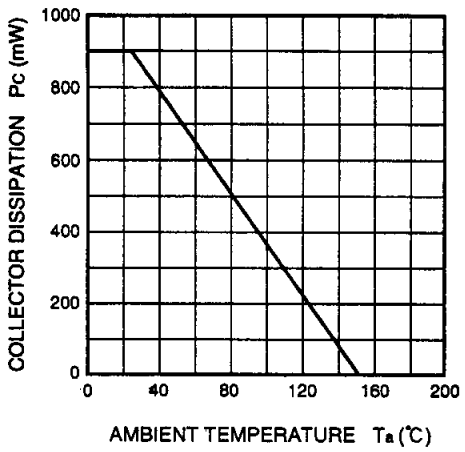
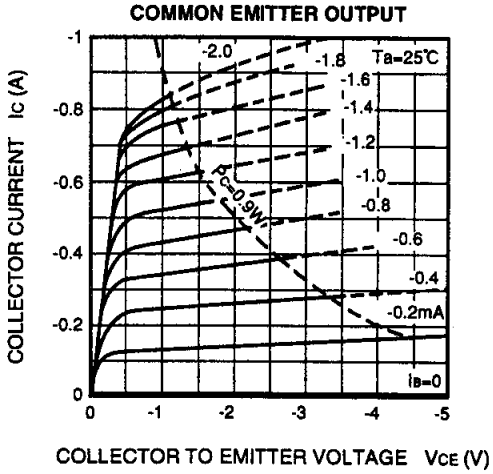
TYPICAL CHARACTERISTICS

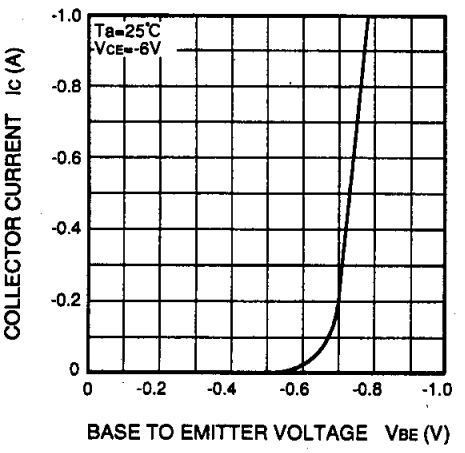
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



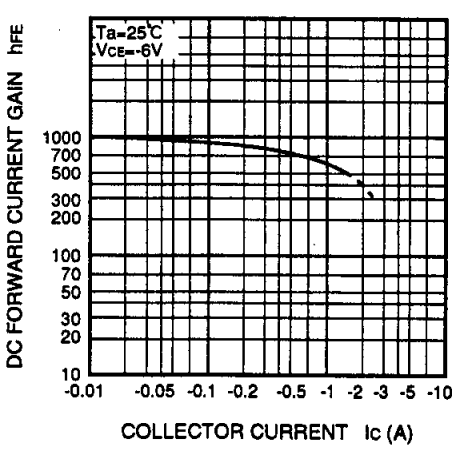
COMMON EMITTER OUTPUT



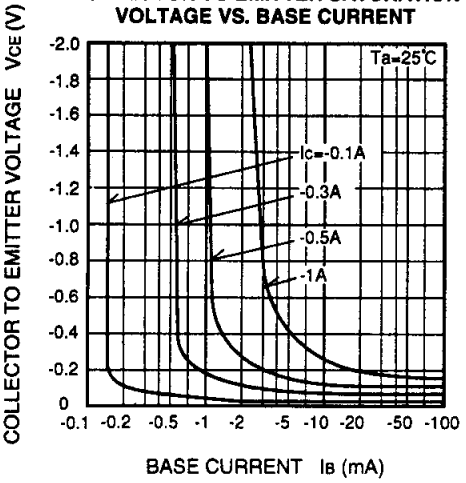
COMMON EMITTER TRANSFER



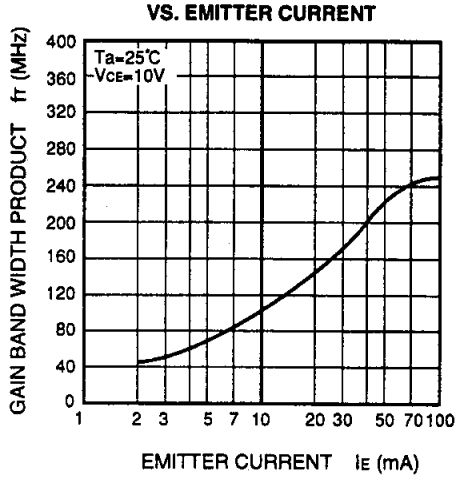
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. BASE CURRENT



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



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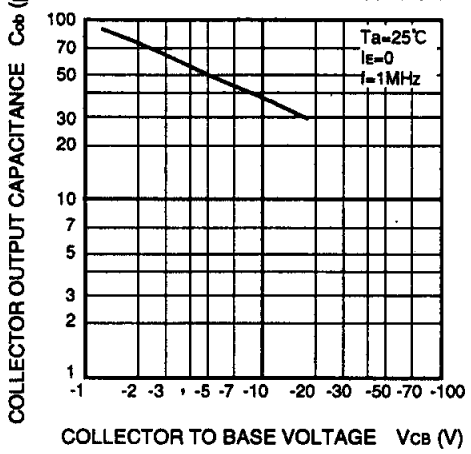
COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE



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Notes regarding these materials