〈SMALL-SIGNAL TRANSISTOR〉

2SC3246

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

DESCRIPTION

2SC3246 is a silicon NPN epitaxial type transistor. Designed with high collector current and high h_{FE}.

Complementary with 2SA1286.

FEATURE

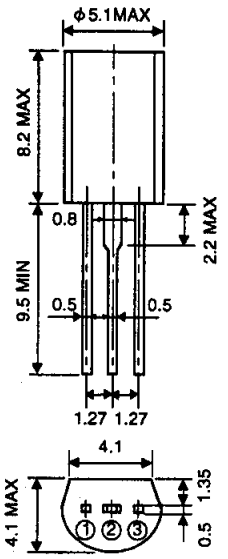
- High h_{FE} h_{FE}=400 to 3000
- High collector current (I_C=1.5A, I_{CM}=3A)
- Low collector to emitter saturation voltage
  $V_{CE(sat)}$=0.2V typ (@I_C=1A, I_B=20mA)
- High collector dissipation P_C=900mW

APPLICATION

VCR, tape-deck small type motor drive of player, plunger, drive of relay, power supply of ripple filter.

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	25	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}=∞	25			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		3000	—
$V_{CE(sat)}$	C to E saturation voltage	I_C=1A,I_B=20mA		0.2	0.5	V
f_T	Gain band width product	V_{CE}=10V,I_E=-10mA		130		MHz
C_{ob}	Collector output capacitance	V_{CB}=10V,I_E=0,f=1MHz		17		pF

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

Item	G	H	J	K
h_{FE}	400 to 800	600 to 1200	900 to 1800	1500 to 3000

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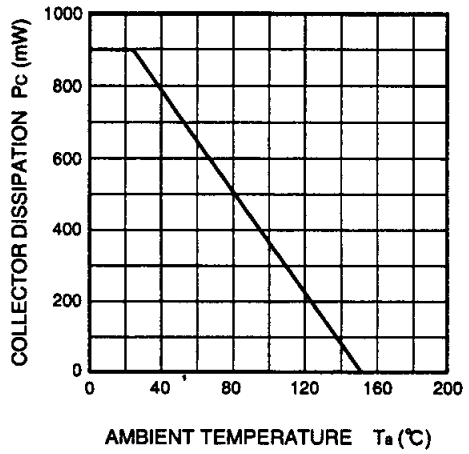
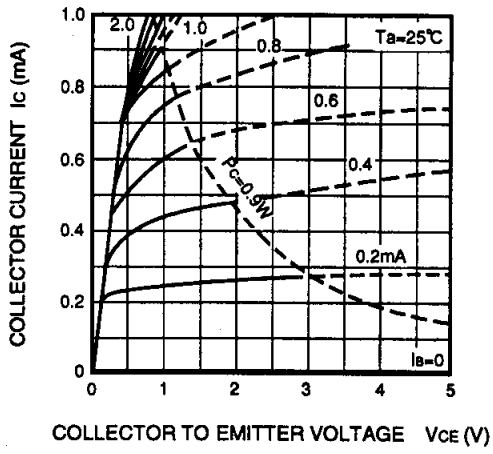
TYPICAL CHARACTERISTICS

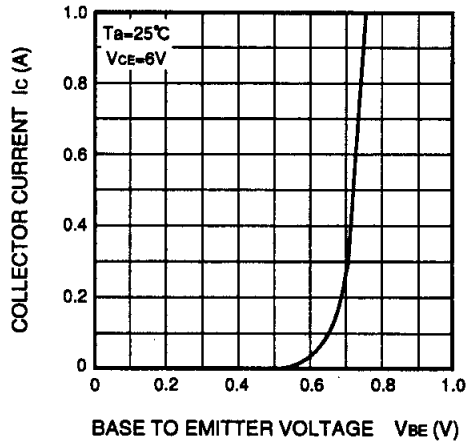
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



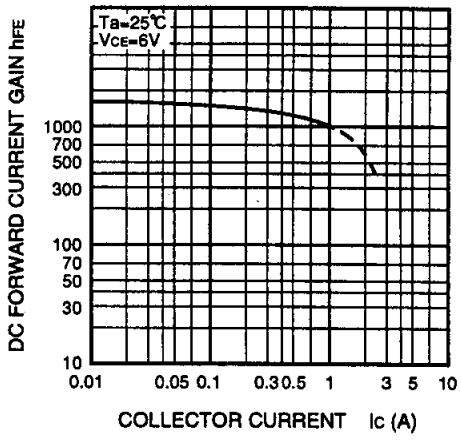
COMMON EMITTER OUTPUT



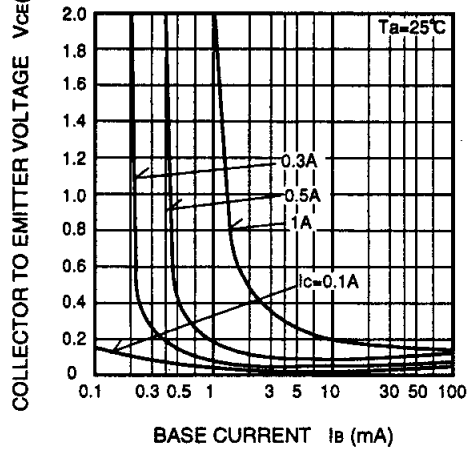
COMMON EMITTER TRANSFER



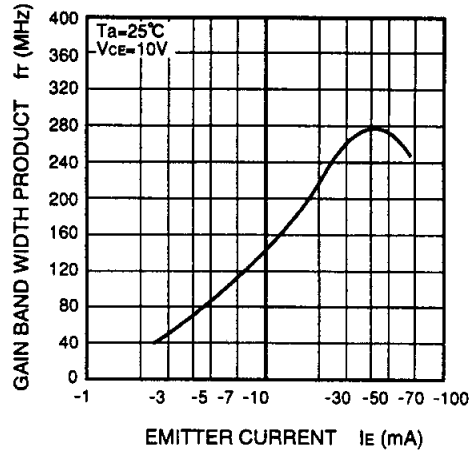
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. BASE CURRENT



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



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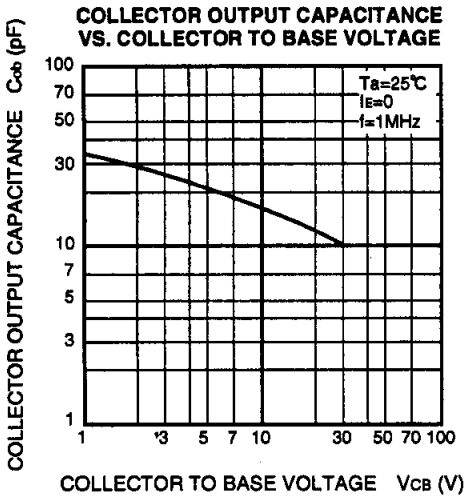

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