

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 hFE.  
Complementary with 2SA1286.

**FEATURE**

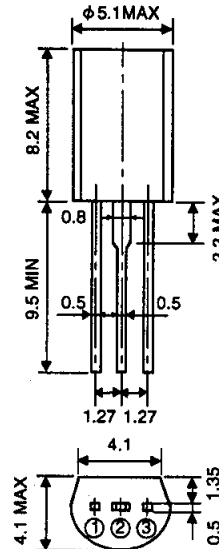
- High hFE hFE=400 to 3000
- High collector current (IC=1.5A, ICM=3A)
- Low collector to emitter saturation voltage  
VCE(sat)=0.2V typ (@ IC=1A, IB=20mA)
- High collector dissipation Pc=900mW

**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 EIAJ : —
- ② : COLLECTOR JEDEC : —
- ③ : BASE

Note)  
The dimension without tolerance represent central value.

**MAXIMUM RATINGS (Ta=25°C)**

Symbol	Parameter	Ratings	Unit
Vcbo	Collector to Base voltage	30	V
Vebo	Emitter to Base voltage	6	V
Vceo	Collector to Emitter voltage	25	V
icm	Peak Collector current	3	A
ic	Collector current	1.5	A
Pc	Collector dissipation(Ta=25°C)	900	mW
Tj	Junction temperature	+150	°C
Tstg	Storage temperature	-55 to +150	°C

**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V(BR)CBO	C to B break down voltage	IC=10 μA, IE=0	30			V
V(BR)EBO	E to B break down voltage	IE=10 μA, IC=0	6			V
V(BR)CEO	C to E break down voltage	IC=1mA, RE=∞	25			V
ICBO	Collector cut off current	VCE=20V, IE=0			0.1	μA
IEBO	Emitter cut off current	VEB=2V, IC=0			0.1	μA
hFE *	DC forward current gain	VCE=6V, IC=500mA	400		3000	—
VCE(sat)	C to E saturation voltage	IC=1A, IB=20mA		0.2	0.5	V
ft	Gain band width product	VCE=10V, IE=-10mA		130		MHz
Cob	Collector output capacitance	VCE=10V, IE=0, f=1MHz		17		pF

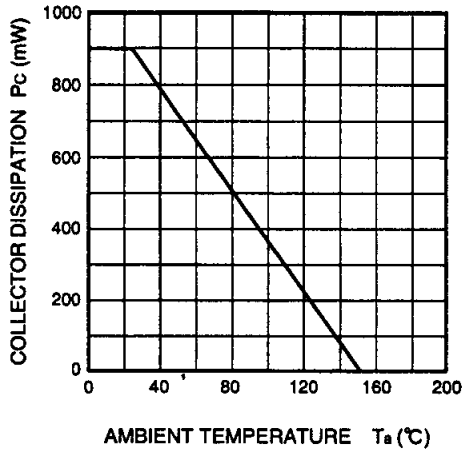
\* : It shows hFE classification in right table.

Item	G	H	J	K
hFE	400 to 800	600 to 1200	900 to 1800	1500 to 3000

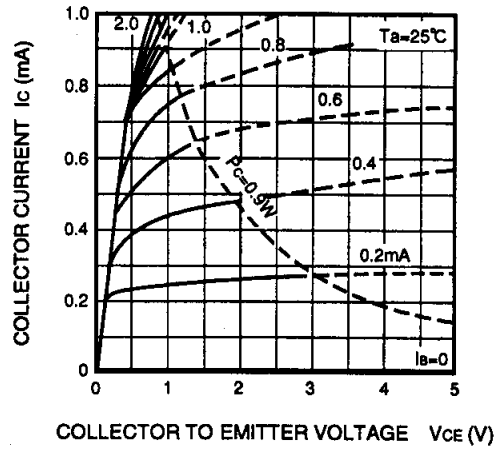
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**TYPICAL CHARACTERISTICS**

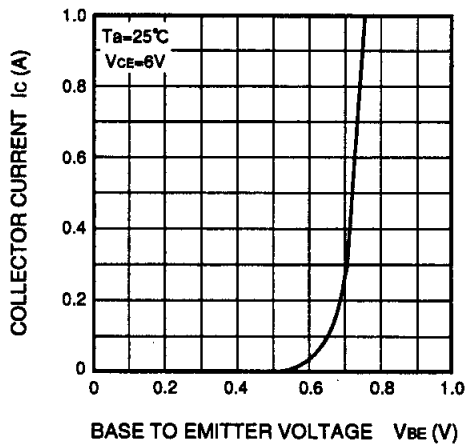
**COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE**



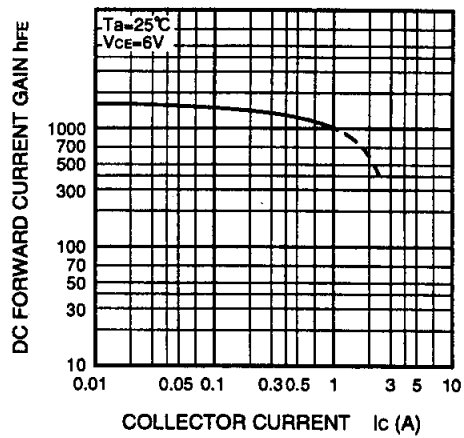
**COMMON EMITTER OUTPUT**



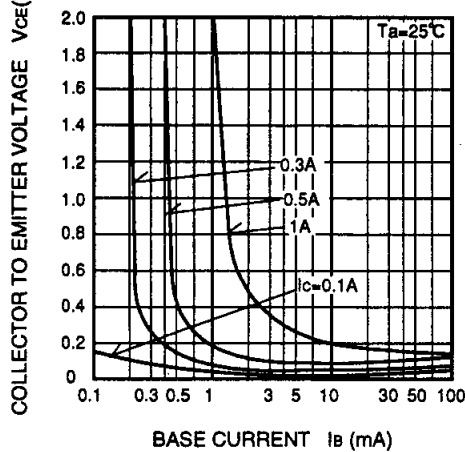
**COMMON EMITTER TRANSFER**



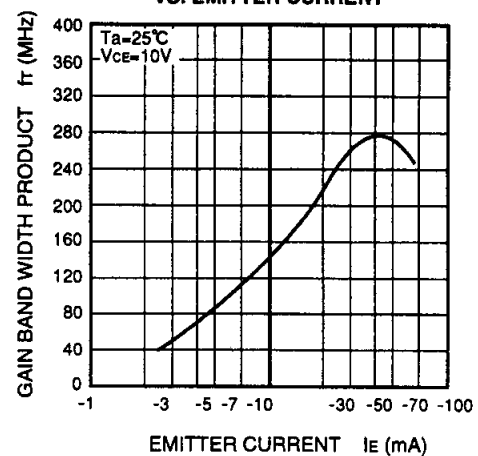
**DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT**



**COLLECTOR TO EMITTER SATURATION VOLTAGE VS. BASE CURRENT**



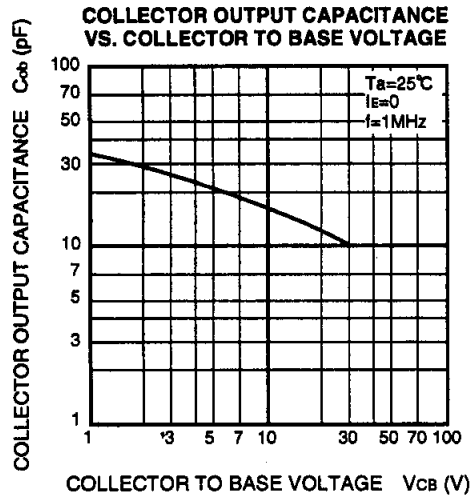
**GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT**



<SMALL-SIGNAL TRANSISTOR>

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