

<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 hFE.  
Complementary with 2SA1286.

**FEATURE**

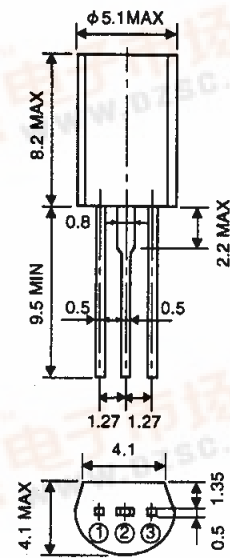
- High hFE hFE=400 to 3000
- High collector current (IC=1.5A, ICM=3A)
- Low collector to emitter saturation voltage  
VCE(sat)=0.2V typ (@ IC=1A, IB=20mA)
- High collector dissipation Pc=900mW

**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 : — JEDEC : —
- ② : COLLECTOR
- 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, RBE=∞	25			V
ICBO	Collector cut off current	VCE=20V, IE=0			0.1	μA
IEBO	Emitter cut off current	VEE=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
fr	Gain band width product	VCE=10V, IE=10mA		130		MHz
Cob	Collector output capacitance	VCB=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



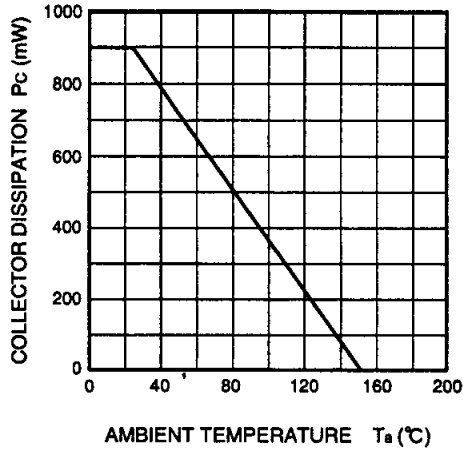
(SMALL-SIGNAL TRANSISTOR)

2SC3246

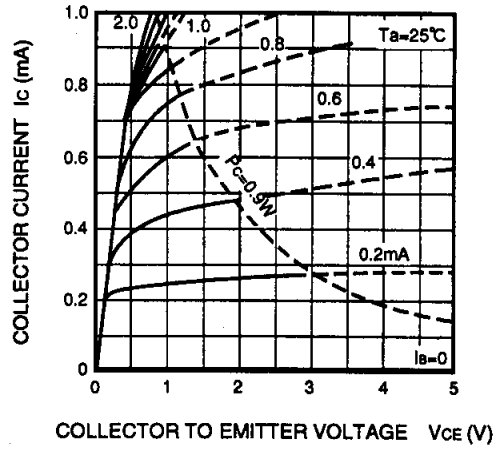
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TYPICAL CHARACTERISTICS

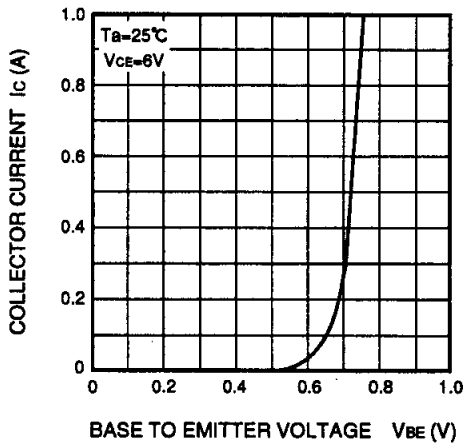
COLLECTOR DISSIPATION VS.  
AMBIENT TEMPERATURE



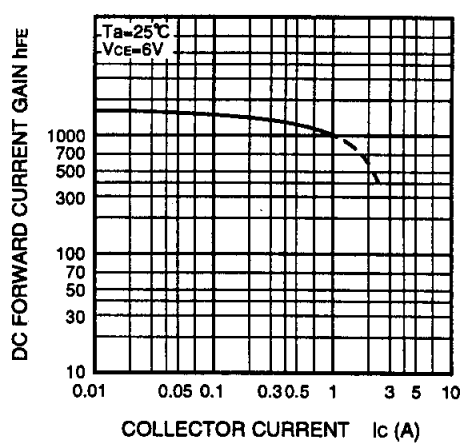
COMMON EMITTER OUTPUT



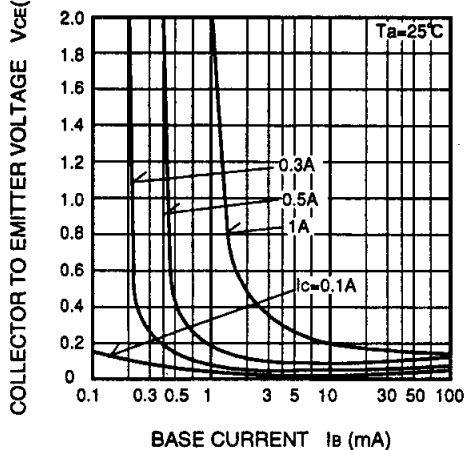
COMMON EMITTER TRANSFER



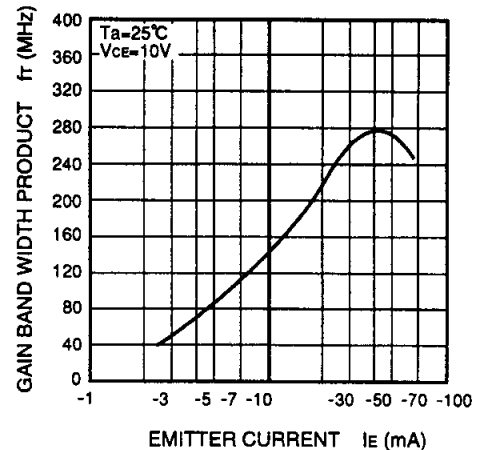
DC FORWARD CURRENT GAIN  
VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION  
VOLTAGE VS. BASE CURRENT



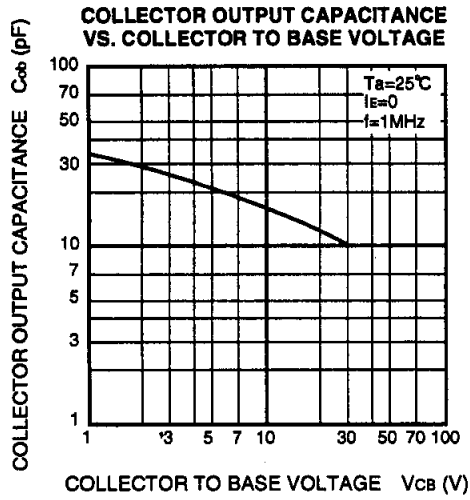
GAIN BAND WIDTH PRODUCT  
VS. EMITTER CURRENT



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 **ISAHAYA ELECTRONICS CORPORATION**

<http://www.idc-com.co.jp>

6-41, TSUKUBA, ISAHAYA, NAGASAKI, 854-0065, JAPAN

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