

2SC3242, 2SC3242A

FOR LOW FREQUENCY POWER AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

2SC3242, 2SC3242A is a silicon NPN epitaxial type transistor designed for small type motor drive, solenoid drive and power supply application.

Complementary with 2SA1282, 2SA1282A.

FEATURE

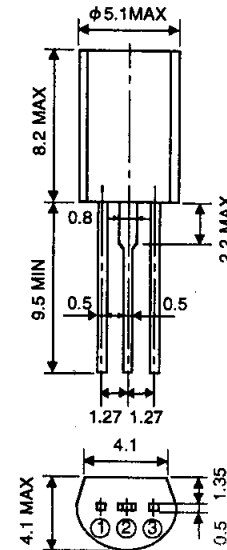
- High collector current $I_C=2A$
- Low $V_{CE(sat)}$
 $V_{CE(sat)}=0.17V$ typ (@ $I_C=1A$)
- High h_{FE} $h_{FE}=150$ to 800
- High collector dissipation $P_C=900mW$

APPLICATION

Small type motor drive, power supply for VCR, deck, player.

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

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

Note)

The dimension without tolerance represent central value.

MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings		Unit
		2SC3242	2SC3242A	
V_{CBO}	Collector to Base voltage	20	20	V
V_{EBO}	Emitter to Base voltage	6	6	V
V_{CEO}	Collector to Emitter voltage	16	20	V
I_{CM}	Peak Collector current	3		A
I_C	Collector current	2		A
P_C	Collector dissipation (Ta=25°C)	900		mW
T_j	Junction temperature	+150		°C
T_{stg}	Storage temperature	-55 to +150		°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

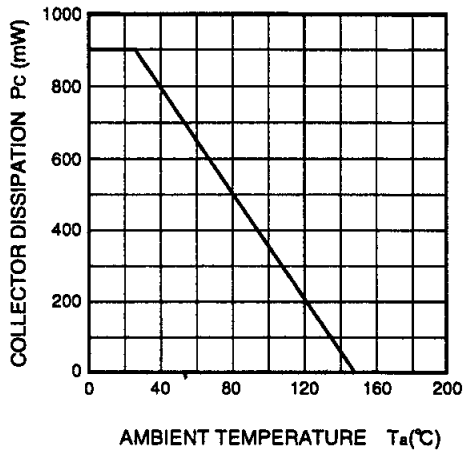
Symbol	Parameter	Test conditions	Limits						Unit
			2SC3242			2SC3242A			
			Min	Typ	Max	Min	Typ	Max	
V(BR)CBO	C to B break down voltage	I _C =10 μA, I _E =0	20			20			V
V(BR)EBO	E to B break down voltage	I _E =10 μA, I _C =0	6			6			V
V(BR)CEO	C to E break down voltage	I _C =2mA, R _{BE} =∞	16			20			V
I _{CBO}	Collector cut off current	V _{CB} =16V, I _E =0			0.2			0.2	μA
I _{EBO}	Emitter cut off current	V _{EB} =4V, I _C =0			0.2			0.2	μA
h _{FE}	DC forward current gain	V _{CE} =4V, I _C =100mA	150		800	150		500	—
V _{CE(sat)}	C to E saturation voltage	I _C =1A, I _B =50mA		0.17	0.3		0.17	0.3	V
f _T	Gain band width product	V _{CE} =2V, I _E = -10mA		80			80		MHz
C _{ob}	Collector output capacitance	V _{CB} =10V, I _E =0, f=1MHz		28			28		pF

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

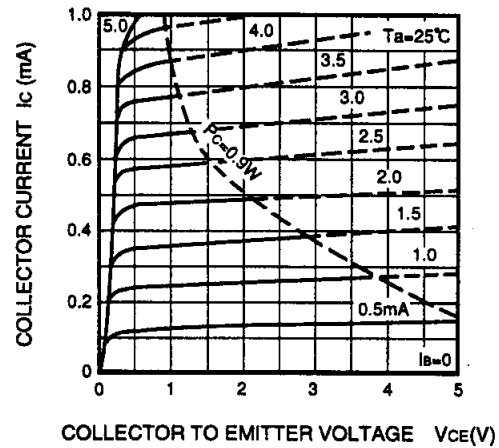
Item	E	F	G
h_{FE}	150 to 300	250 to 500	400 to 800

TYPICAL CHARACTERISTICS

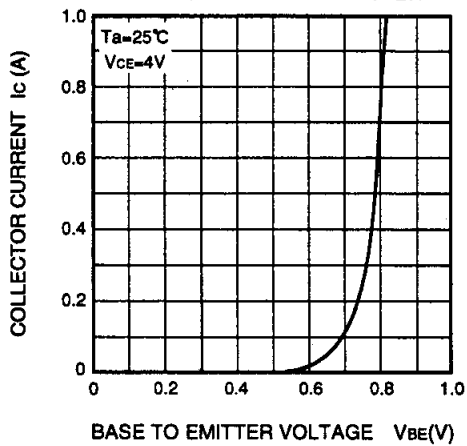
**COLLECTOR DISSIPATION VS.
AMBIENT TEMPERATURE**



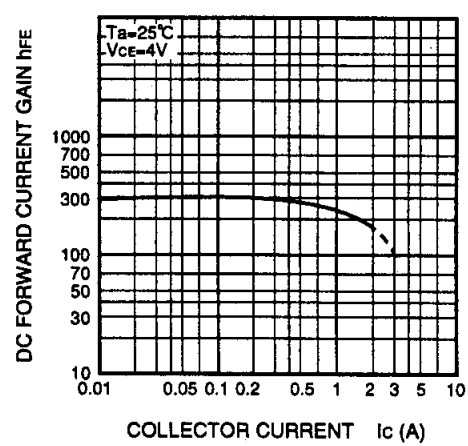
COMMON EMITTER OUTPUT



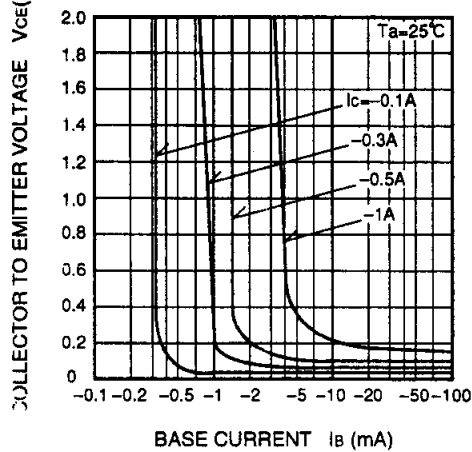
COMMON EMITTER TRANSFER



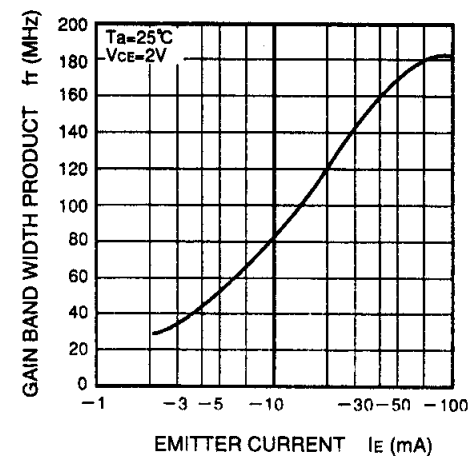
**DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT**



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



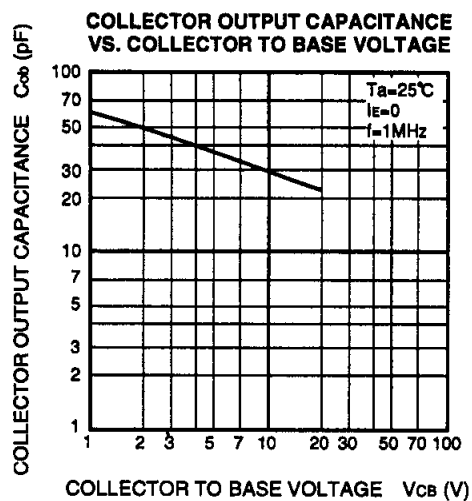
**GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT**



(SMALL-SIGNAL TRANSISTOR)

2SC3242, 2SC3242A

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SILICON NPN EPITAXIAL TYPE





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