

<Transistor>

# 2SC5486

For strobe,DC/DC convertor Application  
Silicon NPN Epitaxial Type Micro(Frame type)

## DESCRIPTION

.. 2SC5486 is a silicon NPN epitaxial Transistor.

It designed with high collector current and high collector dissipation.

## FEATURE

- High collector current  
 $I_C = 5A$
- Small collector to Emitter saturation voltage  
 $V_{CE(sat)} = 0.5V \text{ max} (@ I_C=3A, I_B=100mA)$
- High collector dissipation  
 $P_C = 600mW$

## APPLICATION

For strobe ,DC/DC convertor,power amplify application

## MAXIMUM RATINGS (Ta=25°C)

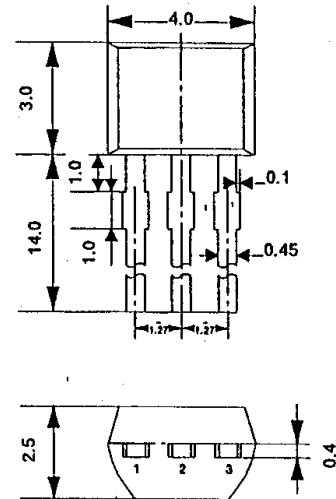
SYMBOL	PARAMETER	RATINGS	UNIT
V <sub>CB0</sub>	Collector to Base voltage	15	V
V <sub>EB0</sub>	Emitter to Base voltage	7	V
V <sub>CE0</sub>	Collector to Emitter voltage	10	V
I <sub>CM</sub>	Peak Collector current	8	A
I <sub>C</sub>	Collector current	5	A
P <sub>C</sub>	Collector dissipation (Ta=25°C)	600	mW
T <sub>J</sub>	Junction temperature	+150	°C
T <sub>stg</sub>	Storage temperature	-55to+150	°C

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

SYMBOL	PARAMETER	TESTCONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
V <sub>(BR)CBO</sub>	C to B break down voltage	I <sub>C</sub> =50 μA, I <sub>E</sub> =0	15			V
V <sub>(BR)EBO</sub>	E to B break down voltage	I <sub>E</sub> =50 μA, I <sub>C</sub> =0	7			V
V <sub>(BR)CEO</sub>	C to E break down voltage	I <sub>C</sub> =1mA, R <sub>BE</sub> =∞	10			V
I <sub>CBO</sub>	Collector cut off current	V <sub>CB</sub> =10V, I <sub>E</sub> =0			0.1	μA
I <sub>EBO</sub>	Emitter cut off current	V <sub>EB</sub> =7V, I <sub>C</sub> =0			0.5	μA
h <sub>FE</sub> *	DC forward current gain	V <sub>CE</sub> =2V, I <sub>C</sub> =0.5A	230		600	—
V <sub>CE(sat)</sub>	C to E saturation voltage	I <sub>C</sub> =3A, I <sub>B</sub> =100mA		0.25	0.5	V
f <sub>T</sub>	Gain band width product	V <sub>CE</sub> =6V, I <sub>E</sub> =-50mA, f=100MHz		135		MHz
C <sub>ob</sub>	Collector output capacitance	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz		45		pF

OUTLINE DRAWING

UNIT:mm



TERMINAL CONNECTOR

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

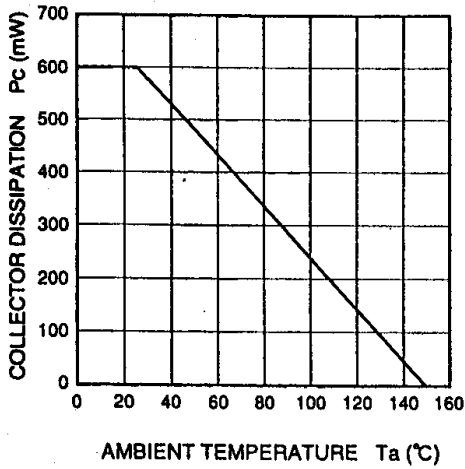
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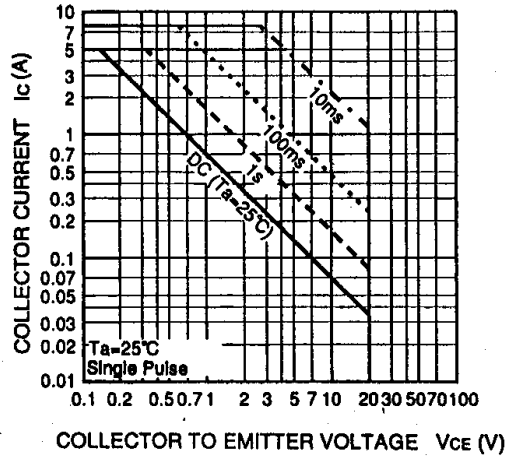
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## TYPICAL CHARACTERISTICS

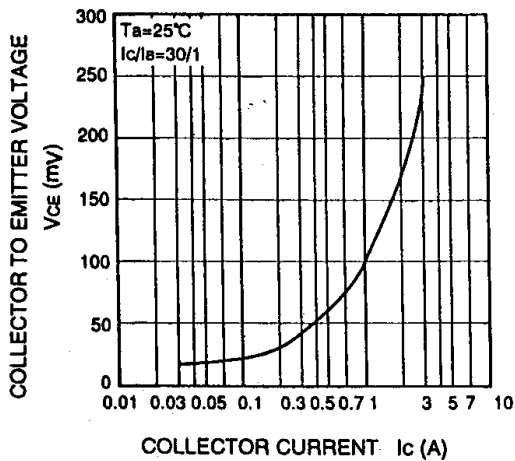
### COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



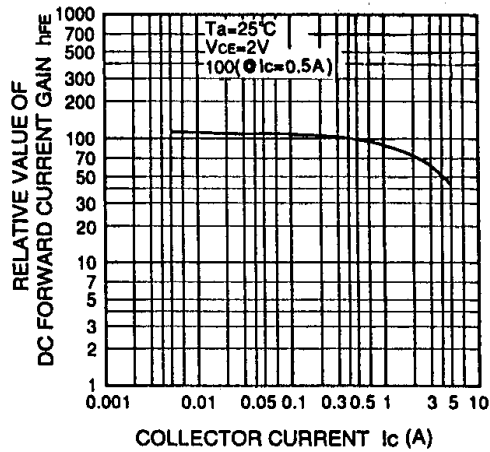
### AREA OF SAFE OPERATION



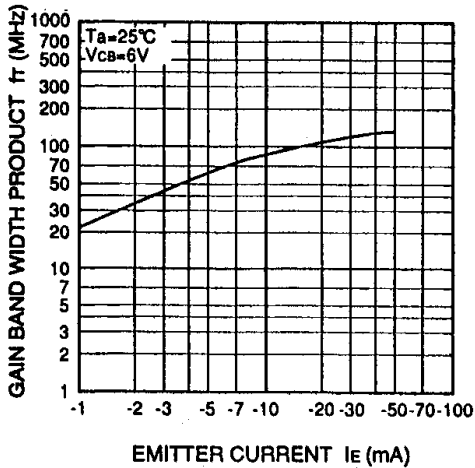
### COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



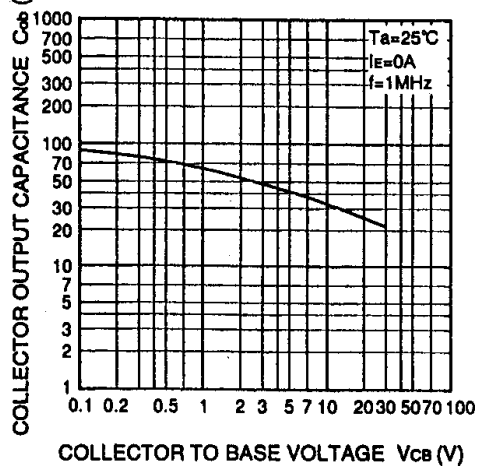
### DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



### GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



### COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE

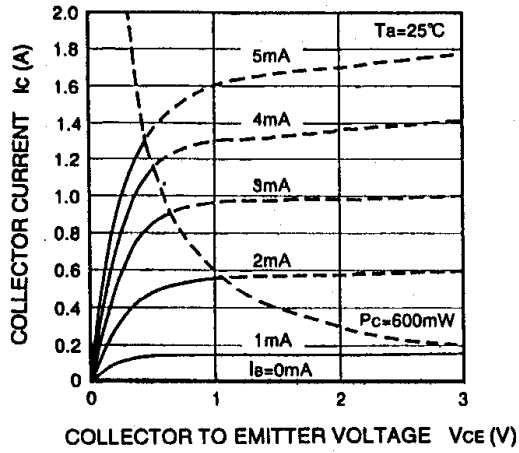


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**COLLECTOR CURRENT VS.  
COLLECTOR TO EMITTER VOLTAGE**



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