

<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)

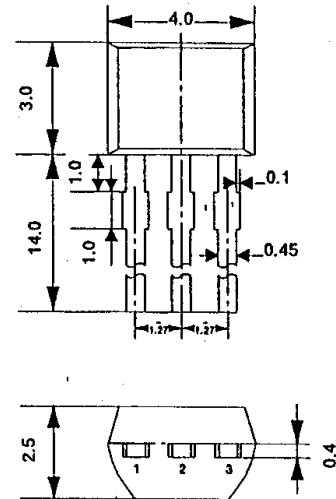
SYMBOL	PARAMETER	RATINGS	UNIT
V _{CB0}	Collector to Base voltage	15	V
V _{EB0}	Emitter to Base voltage	7	V
V _{CE0}	Collector to Emitter voltage	10	V
I _{CM}	Peak Collector current	8	A
I _C	Collector current	5	A
P _C	Collector dissipation (Ta=25°C)	600	mW
T _J	Junction temperature	+150	°C
T _{stg}	Storage temperature	-55to+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	I _C =50 μA, I _E =0	15			V
V _{(BR)EBO}	E to B break down voltage	I _E =50 μA, I _C =0	7			V
V _{(BR)CEO}	C to E break down voltage	I _C =1mA, R _{BE} =∞	10			V
I _{CBO}	Collector cut off current	V _{CB} =10V, I _E =0			0.1	μA
I _{EBO}	Emitter cut off current	V _{EB} =7V, I _C =0			0.5	μA
h _{FE} *	DC forward current gain	V _{CE} =2V, I _C =0.5A	230		600	—
V _{CE(sat)}	C to E saturation voltage	I _C =3A, I _B =100mA		0.25	0.5	V
f _T	Gain band width product	V _{CE} =6V, I _E =-50mA, f=100MHz		135		MHz
C _{ob}	Collector output capacitance	V _{CB} =10V, I _E =0, f=1MHz		45		pF

OUTLINE DRAWING

UNIT:mm



TERMINAL CONNECTOR

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

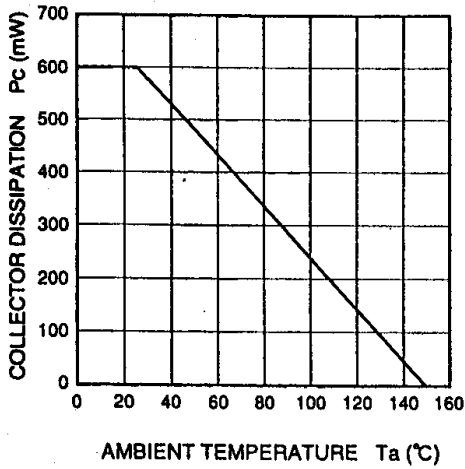
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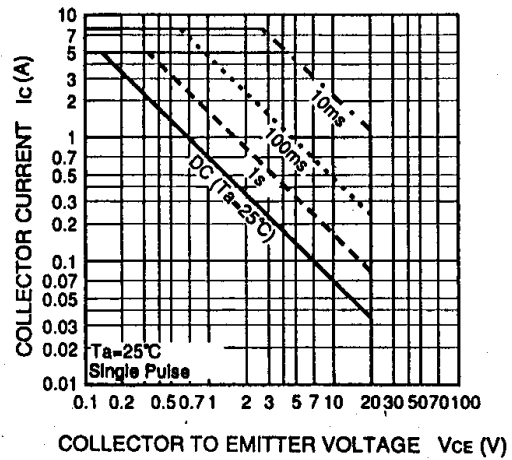
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TYPICAL CHARACTERISTICS

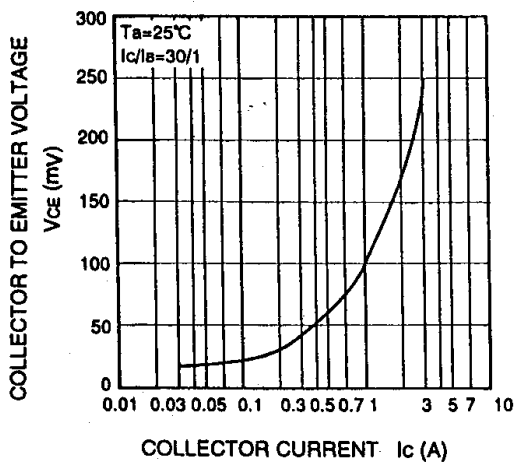
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



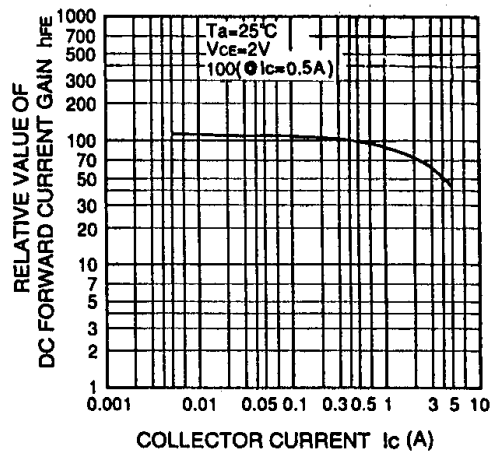
AREA OF SAFE OPERATION



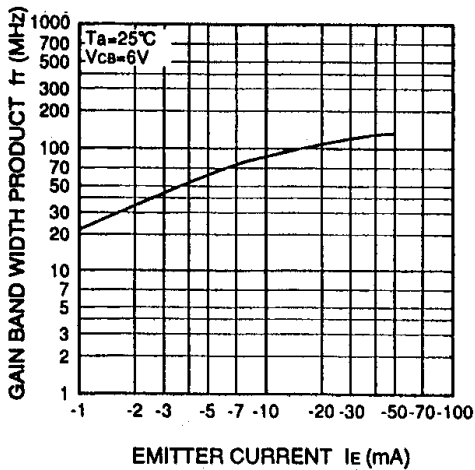
COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



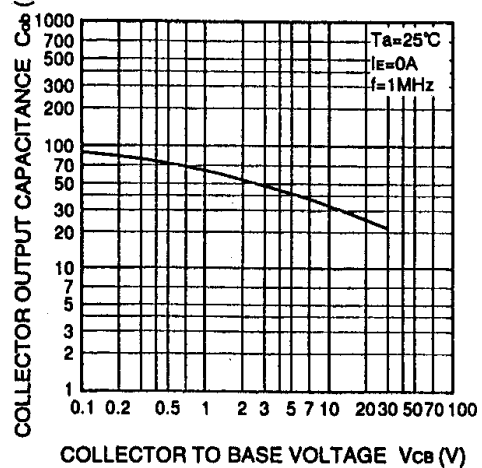
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE

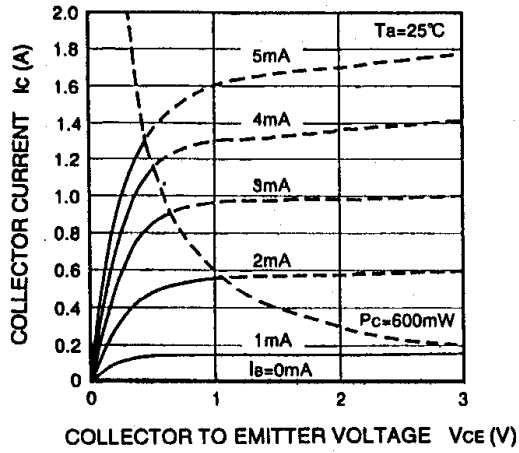


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COLLECTOR CURRENT VS.
COLLECTOR TO EMITTER VOLTAGE



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