INC1001AC1

FOR GENERAL PURPOSE HIGH CURRENT DRIVE APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

INC1001AC1 is a silicon NPN epitaxial type transistor.
It is designed with high collector current and small $V_{CE(sat)}$.

FEATURE

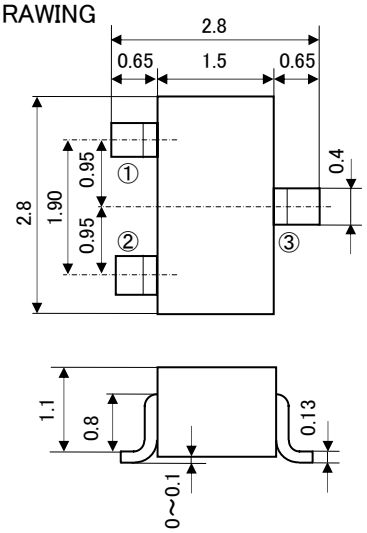
- Super mini package for easy mounting
- High collector current(I_C=500mA)
- Low collector saturation voltage
  ($V_{CE(sat)}$<0.25V_{max} ; IC=100mA、IB=10mA)

APPLICATION

For switching, Small type motor drive

OUTLINE DRAWING

UNIT : mm



Terminal Connector
①: Base
②: Emitter
③: Collector

JEITA:SC-59
JEDEC: Similar to TO-236

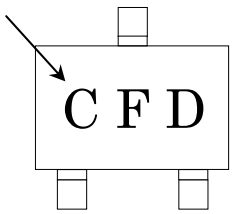
MAXIMUM RATING (Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
V_{CEO}	Collector to Emitter voltage	80	V
V_{CBO}	Collector to Base voltage	80	V
V_{EBO}	Emitter to Base voltage	7	V
I_C	Collector current	0.5	A
P_C	Collector dissipation(Ta=25℃)	200	mW
		500(*)	
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

*Mounted on glass epoxy board(46mm × 19mm × 1mm)

MARKING

Type Name

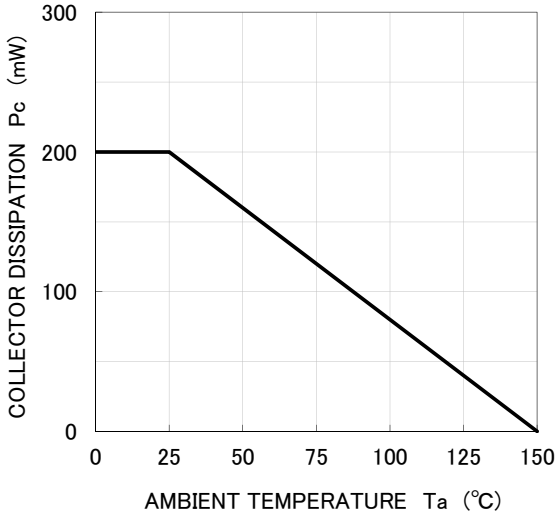


ELECTRICAL CHARACTERISTICS (Ta=25℃)

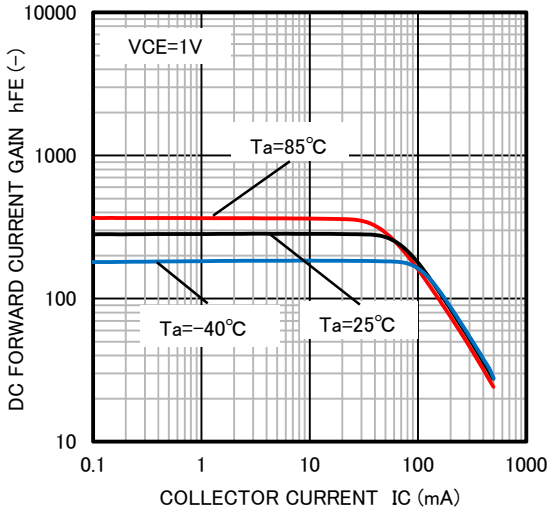
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CEO}$	C to E break down voltage	I_C=1mA, I_B=0mA	80	−	−	V
$V_{(BR)CBO}$	C to B break down voltage	I_C=100μA, I_E=0mA	80	−	−	V
$V_{(BR)EBO}$	E to B break down voltage	I_E=100μA, I_C=0mA	7	−	−	V
I_{CBO}	Collector cut off current	V_{CB}=80V, I_E=0mA	−	−	0.15	μA
I_{EBO}	Emitter cut off current	V_{EB}=7V, I_C=0mA	−	−	0.15	μA
hFE1	DC forward current gain1	VCE=1V, I_C=10mA	105	−	−	−
hFE2	DC forward current gain2	VCE=1V, I_C=100mA	95	−	−	−
VCE(sat)	C to E saturation voltage	I_C=100mA, I_B=10mA	−	−	0.3	V
fT	Gain bandwidth product	VCE=2V, I_E=−10mA, f=100MHz	100	−	−	MHz

TYPICIAL CHARACTERISTICS

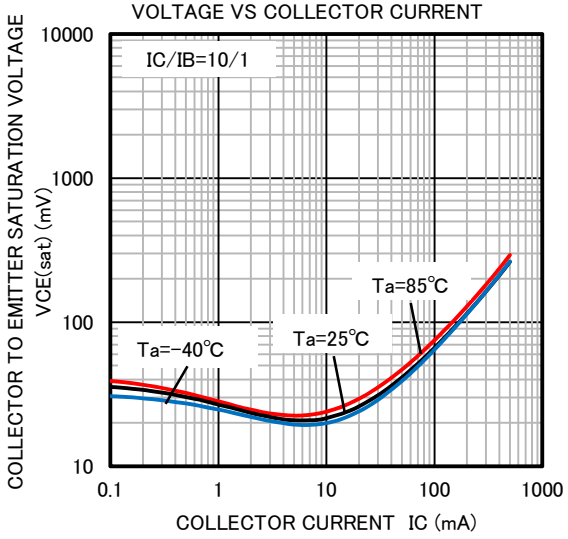
COLLECTOR DISSIPATION
VS AMBIENT TEMPERATURE



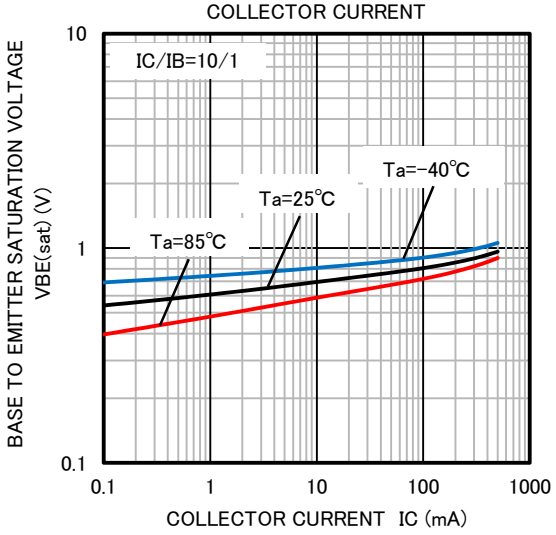
DC FORWARD CURRENT GAIN
VS COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION
VOLTAGE VS COLLECTOR CURRENT



BASE TO EMITTER SATURATION VOLTAGE VS
COLLECTOR CURRENT



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