INC6008AC1

FOR HIGH CURRENT DRIVE APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

INC6008AC1 is a silicon NPN epitaxial type transistor.
It is designed with high collector current and small $V_{CE(sat)}$.

FEATURE

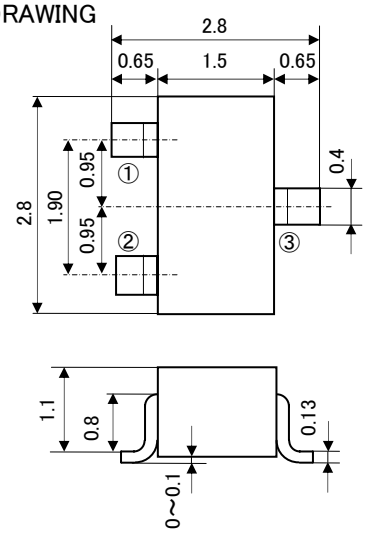
- Super mini package for easy mounting
- High collector current(I_C=1A)
- Low collector saturation voltage
  ($V_{CE(sat)}$<0.7V_{max} ; I_C=150mA、I_B=15mA)

APPLICATION

Switching, Small type motor drive

OUTLINE DRAWING

UNIT : mm



Terminal Connector
①:Base
②:Emitter
③:Collector

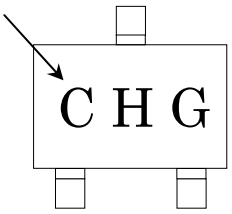
JEITA:SC-59
JEDEC: Similar to TO-236

MAXIMUM RATING(Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	160	V
V_{EBO}	Emitter to Base voltage	5	V
V_{CEO}	Collector to Emitter voltage	140	V
I_C	Collector current	1	A
P_C	Collector dissipation(Ta=25℃)	200	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

MARKING

Type Name

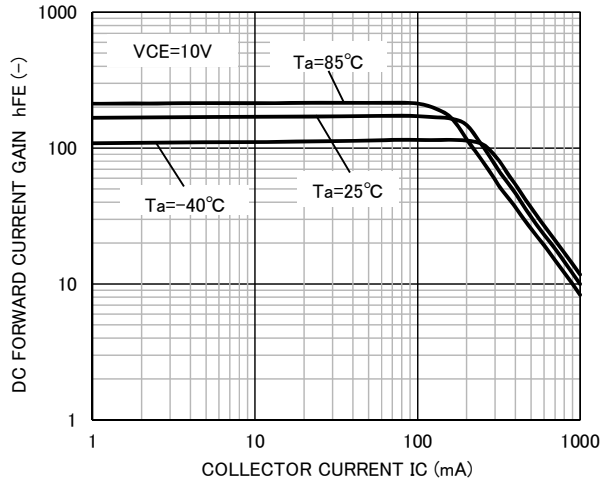


ELECTRICAL CHARACTERISTICS(Ta=25℃)

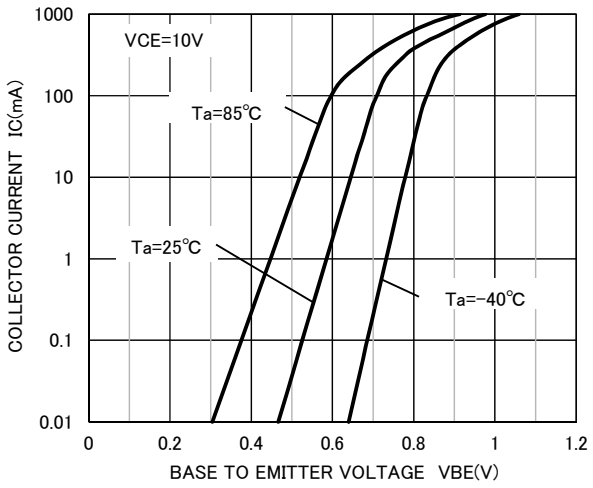
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B breakdown voltage	I_C=100μA, I_E=0mA	160	−	−	V
$V_{(BR)EBO}$	E to B breakdown voltage	I_E=100μA, I_C=0mA	5	−	−	V
$V_{(BR)CEO}$	C to E breakdown voltage	I_C=10mA, R_{BE}=∞	140	−	−	V
I_{CBO}	Collector cut off current	V_{CB}=140V, I_E=0mA	−	−	100	nA
I_{EBO}	Emitter cut off current	V_{EB}=4V, I_C=0mA	−	−	100	nA
h_{FE}	DC forward current gain	V_{CE}=10V, I_C=150mA	100	−	300	−
$V_{CE(sat)}$	C to E saturation voltage	I_C=150mA, I_B=15mA	−	−	0.7	V
$V_{BE(sat)}$	B to E saturation voltage	I_C=150mA, I_B=15mA	−	−	1.1	V
f_T	Gain bandwidth product	V_{CE}=10V, I_E=−50mA, f=100MHz	100	−	−	MHz
Cob	Collector output capacitance	V_{CB}=10V, f=1MHz	−	−	15	pF

TYPICAL CHARACTERISTICS (Ta=25°C)

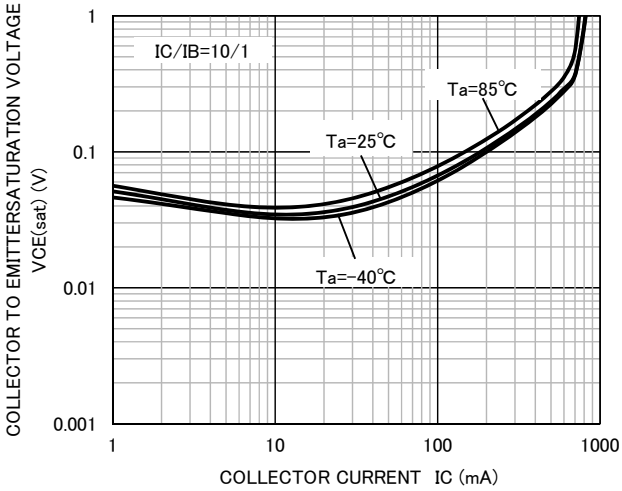
DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT



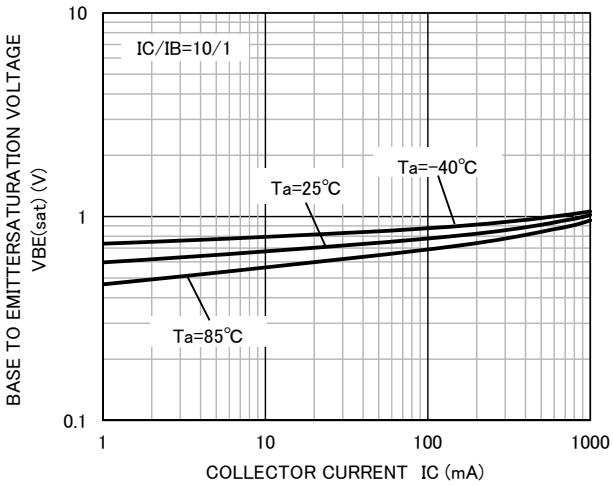
COMMON EMITTER TRANSFER



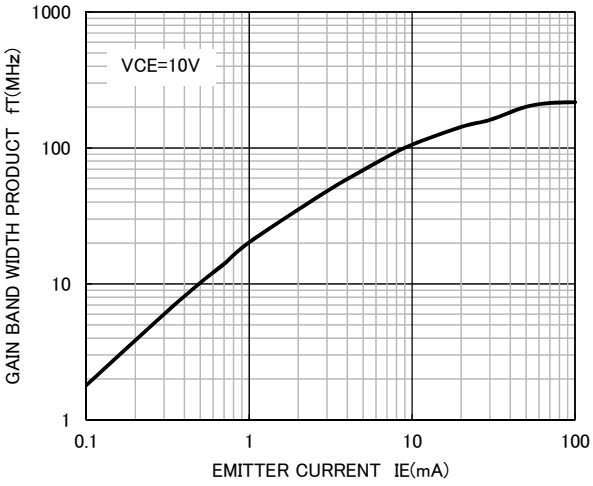
COLLECTOR TO EMITTERSATURATION
VOLTAGE VS. COLLECTOR CURRENT



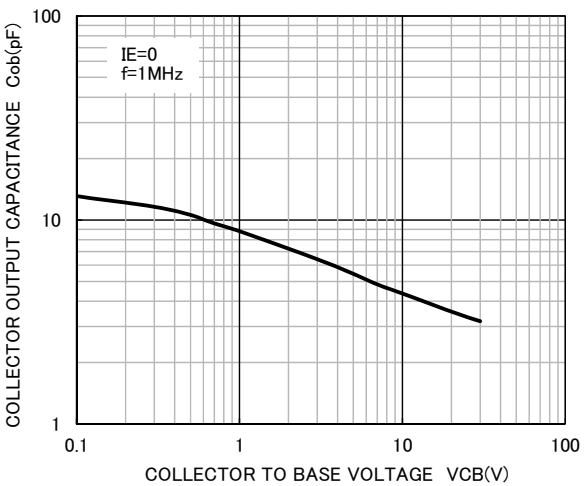
BASE TO EMITTERSATURATION VOLTAGE
VS. COLLECTOR



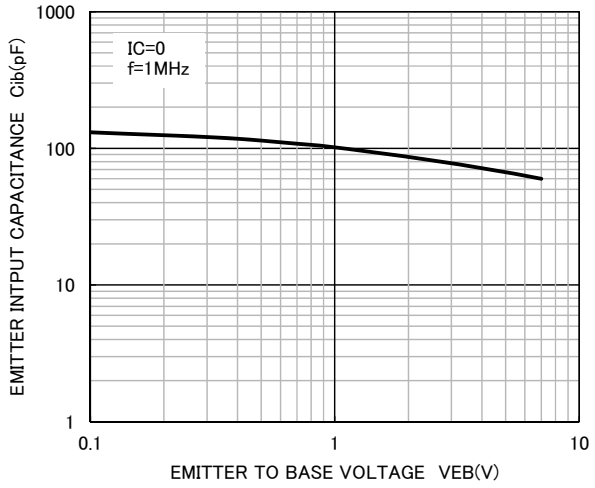
GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT



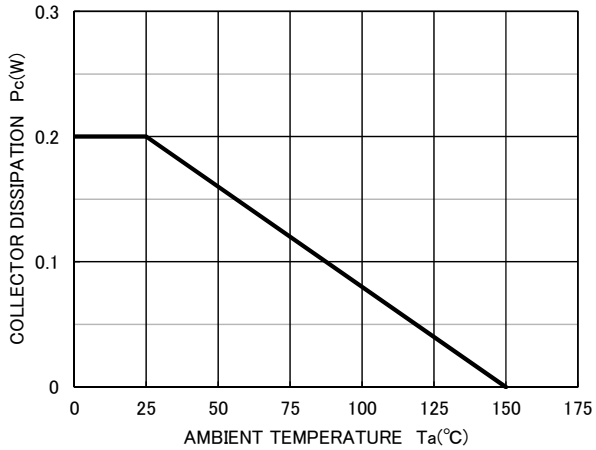
COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BAS



EMITTER INPUT CAPACITANCE
VS. BASE TO EMITTER VOLTAGE



COLLECTOR DISSIPATION-AMBIENT TEMPERATURE



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