

**PRELIMINARY**

Notice: This is not a final specification  
Some parametric are subject to change.

# INC5006AC1

FOR HIGH CURRENT DRIVE APPLICATION  
SILICON NPN EPITAXIAL TYPE

## DESCRIPTION

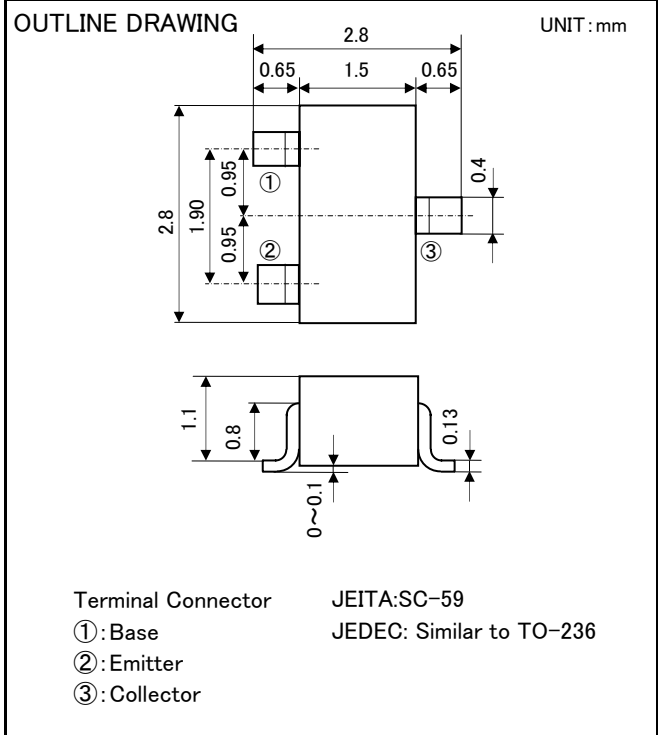
INC5006AC1 is a silicon NPN epitaxial type transistor.  
It is designed with high collector current and small  $V_{CE(sat)}$ .

## FEATURE

- Super mini package for easy mounting
- High collector current ( $I_C=3A$ )
- Low collector saturation voltage  
( $V_{CE(sat)} < 0.2V_{max}; I_C=3A, I_B=20mA$ )

## APPLICATION

Switching, Small type motor drive

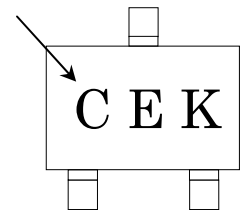


## MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING	UNIT
$V_{CEO}$	Collector to Emitter voltage	50	V
$V_{CBO}$	Collector to Base voltage	100	V
$V_{EBO}$	Emitter to Base voltage	7	V
$I_C$	Collector current	3	A
$P_C$	Collector dissipation(Ta=25°C)	200	mW
$T_j$	Junction temperature	+150	°C
$T_{stg}$	Storage temperature	-55~+150	°C

## MARKING

Type Name



## ELECTRICAL CHARACTERISTICS (Ta=25°C)

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CEO}$	C to E break down voltage	$I_C=10mA, I_B=0mA$	50	-	-	V
$V_{(BR)CBO}$	C to B break down voltage	$I_C=100\mu A, I_E=0mA$	100	-	-	V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=100\mu A, I_C=0mA$	7	-	-	V
$I_{CBO}$	Collector cut off current	$V_{CB}=100V, I_E=0mA$	-	-	0.1	$\mu A$
$I_{EBO}$	Emitter cut off current	$V_{EB}=7V, I_C=0mA$	-	-	0.1	$\mu A$
$h_{FE1}$	DC forward current gain1	$V_{CE}=2V, I_C=300mA$	400	-	1000	-
$h_{FE2}$	DC forward current gain2	$V_{CE}=2V, I_C=1A$	200	-	-	-
$V_{CE(sat)}$	C to E saturation voltage	$I_C=1A, I_B=20mA$	-	-	0.14	V
$V_{BE(sat)}$	B to E saturation voltage	$I_C=1A, I_B=20mA$	-	-	1.1	V
$f_T$	Gain bandwidth product	$V_{CE}=2V, I_E=-300mA, f=100MHz$	-	250	-	MHz
$C_{ob}$	Collector output capacitance	$V_{CB}=10V, f=1MHz$	-	13	-	pF



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**Keep safety first in your circuit designs!**

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