

**PRELIMINARY**

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

**INC6007AP1**

FOR LOW FREQUENCY AMPLIFY APPLICATION  
SILICON NPN EPITAXIAL TYPE

**DESCRIPTION**

INC6007AP1 is a silicon NPN transistor.

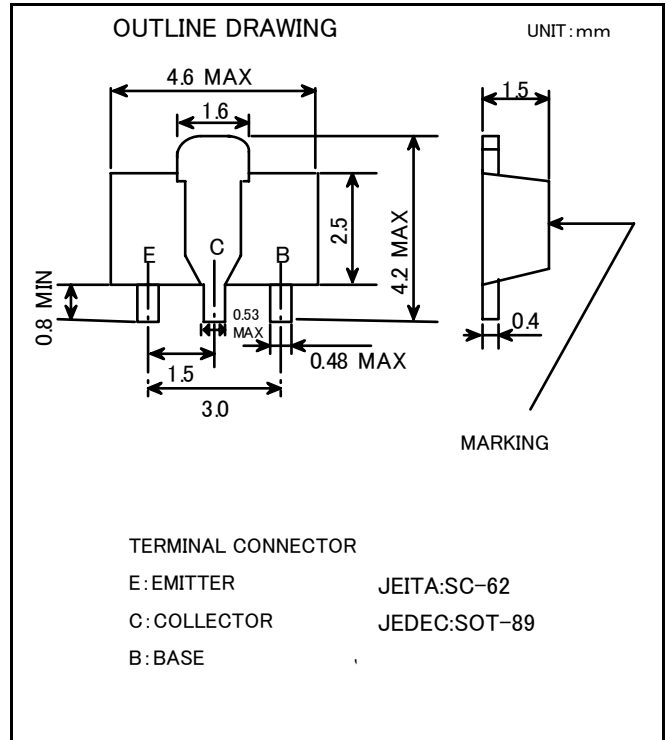
It is designed with high voltage.

**FEATURE**

- Small package for easy mounting.
- High voltage  $V_{CEO} = 400V$
- High collector current  $I_C=500mA$

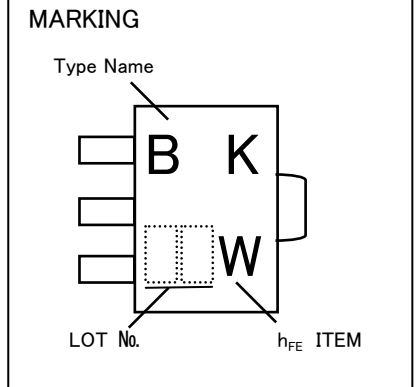
**APPLICATION**

DC-DC converter, High voltage switching



**MAXIMUM RATING (Ta=25°C)**

SYMBOL	PARAMETER	RATING	UNIT
$V_{CBO}$	Collector to Base voltage	400	V
$V_{EBO}$	Emitter to Base voltage	5	V
$V_{CEO}$	Collector to Emitter voltage	400	V
$I_C$	Collector current	500	mA
$P_C$	Collector dissipation(Ta=25°C)	0.5	W
$T_j$	Junction temperature	+150	°C
$T_{stg}$	Storage temperature	-55~+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	$I_C=100 \mu A, I_E=0mA$	400	-	-	V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=100 \mu A, I_C=0mA$	5	-	-	V
$V_{(BR)CEO}$	C to E break down voltage	$I_C=10mA, R_{BE}=\infty$	400	-	-	V
$I_{CBO}$	Collector cut off current	$V_{CB}=320V, I_E=0mA$	-	-	100	nA
$I_{EBO}$	Emitter cut off current	$V_{EB}=4V, I_C=0mA$	-	-	100	nA
hFE1	DC forward current gain1	$V_{CE}=5V, I_C=1mA$	50	-	-	-
hFE2	DC forward current gain2	$V_{CE}=5V, I_C=100mA$	50	-	150	-
VCE(sat)	C to E saturation voltage	$I_C=100mA, I_B=10mA$	-	-	0.5	V
VBE(sat)	B to E saturation voltage	$I_C=100mA, I_B=10mA$	-	-	0.9	V
fT	Gain bandwidth product	$V_{CE}=20V, I_E=-20mA$	50	-	-	MHz
Cob	Collector output capacitance	$V_{CB}=20V, I_E=0mA, f=1MHz$	-	-	10	pF
ton	Turn on time	$V_{CC}=100V, I_C=100mA$	-	130	-	ns
toff	Turn off time	$I_{B1}=10mA, -I_{B2}=20mA$	-	3300	-	ns



6-41 Tsukuba, Isahaya, Nagasaki, 854-0065 Japan

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

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