

## PRELIMINARY

2SA2068

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

FOR LOW FREQUENCY AMPLIFY APPLICATION  
SILICON PNP EPITAXIAL TYPE

## DESCRIPTION

2SA2068 is a super mini package resin sealed silicon PNP epitaxial transistor, It is designed for low frequency application. Since it is a super-thin flat lead type package, a high-density mounting are possible. Complementary with 2SA1235A.

## FEATURE

Super-thin flat lead type package.  $t=0.45\text{mm}$   
Excellent linearity of DC forward current gain.  
Low collector to emitter saturation voltage  
 $V_{CE(sat)} = -0.3\text{V max}$  ( $I_C = -100\text{mA}$ ,  $I_B = -10\text{mA}$ )

## APPLICATION

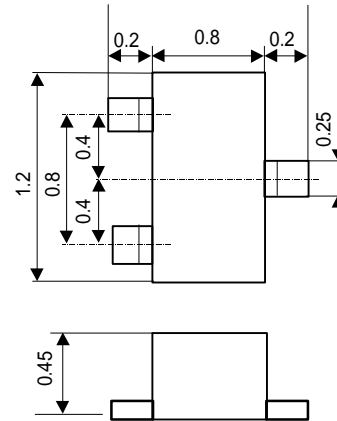
For hybrid IC, small type machine low frequency voltage amplify application.

MAXIMUM RATINGS ( $T_a = 25$ )

Symbol	Parameter	Ratings	Unit
$V_{CBO}$	Collector to Base voltage	-50	V
$V_{CEO}$	Collector to Emitter voltage	-6	V
$V_{EBO}$	Emitter to Base voltage	-50	V
$I_O$	Collector current	-200	mA
$P_c$	Collector dissipation	100	mW
$T_j$	Junction temperature	+125	
$T_{stg}$	Storage temperature	-55 ~ +125	

## OUTLINE DRAWING

Unit: mm



JEITA:

TERMINAL CONNECTOR

: BASE

: EMITTER

: COLLECTOR

ELECTRICAL CHARACTERISTICS ( $T_a = 25$ )

			Limits			
			Min	Typ	Max	
Collector to Emitter Breakdown voltage	$V(BR)_{CEO}$	$I_C = -100\mu\text{A}$ , $R_{BE} =$	-50			V
Collector cut off current	$I_{CBO}$	$V_{CB} = -50\text{V}$ , $I_E = 0\text{mA}$	-	-	-0.1	$\mu\text{A}$
Emitter cut off current	$I_{EBO}$	$V_{EB} = -6\text{V}$ , $I_C = 0\text{mA}$	-	-	-0.1	$\mu\text{A}$
DC forward current gain	hFE	$V_{CE} = -6\text{V}$ , $I_C = -1\text{mA}$	150		800	-
DC forward current gain	hFE	$V_{CE} = -6\text{V}$ , $I_C = -0.1\text{mA}$	90	-	-	-
C to E saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}$ , $I_B = -10\text{mA}$	-	-	-0.3	v
Gain bandwidth product	fT	$V_{CE} = -6\text{V}$ , $I_E = 10\text{mA}$	-	200	-	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -6\text{V}$ , $I_E = 0\text{mA}$ , $f = 1\text{MHz}$	-	4.0	-	pF
Noise figure	NF	$V_{CE} = -6\text{V}$ , $I_E = 0.3\text{mA}$ , $f = 100\text{Hz}$ , $R_G = 10\text{k}$	-	-	20	dB

It shows hFE classification in below table.

Item	E	F	G
hFE	150 ~ 300	250 ~ 500	400 ~ 800
Abbrivation	ME	MF	MG



Marketing division, Marketing planning department

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

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