

# ISD1447AS1

FOR LOW FREQUENCY POWER AMPLIFY APPLICATION  
SILICON NPN EPITAXIAL TYPE

## DESCRIPTION

ISD1447AS1 is a silicon NPN epitaxial type transistor designed for 2 to 3.5W output low frequency power amplify application.

Complementary with ISB1035AS1.

## FEATURE

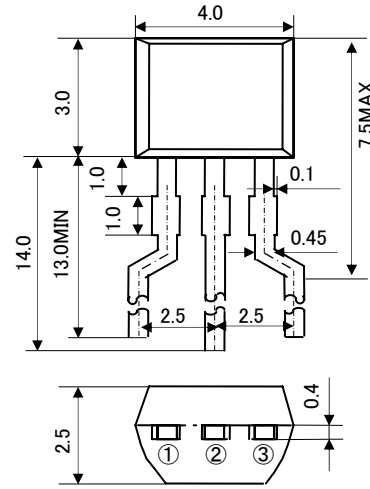
- High collector current.  $I_{CM} = 1.5A$
- High gain band width product.  $fT = 100MHz$  typ
- High collector dissipation.  $P_c = 600mW$
- Excellent linearity of DC forward current gain.

## APPLICATION

2 to 3.5W output low frequency amplify circuit of radio, cassette tape recorder, mini stereo.

## OUTLINE DRAWING

Unit: mm



JEITA:  
JEDEC:

### TERMINAL CONNECTER

- ①: EMITTER
- ②: COLLECTOR
- ③: BASE

## MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

Symbol	Parameter	Ratings	Unit
$V_{CBO}$	Collector to Base voltage	30	V
$V_{EBO}$	Emitter to Base voltage	4	V
$V_{CEO}$	Collector to Emitter voltage	25	V
$I_C$	Collector current	1	A
$I_{CM}$	Peak collector current	1.5	A
$P_c$	Collector dissipation	600	mW
$T_j$	Junction temperature	+150	$^\circ C$
$T_{stg}$	Storage temperature	-55~+150	$^\circ C$

## ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

Parameter	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	$I_C = 10 \mu A, I_E = 0mA$	30	-	-	V
$V_{(BR)EBO}$	E to B break down voltage	$I_E = 10 \mu A, I_C = 0mA$	4	-	-	V
$V_{(BR)CEO}$	C to E break down voltage	$I_C = 100 \mu A, R_{BE} = \infty$	25	-	-	V
$I_{CBO}$	Collector cut off current	$V_{CB} = 25V, I_E = 0mA$	-	-	1	$\mu A$
$I_{EBO}$	Emitter cut off current	$V_{EB} = 2V, I_C = 0mA$	-	-	1	$\mu A$
$h_{FE} \times$	DC forward current gain	$V_{CE} = 1V, I_C = 500mA$	55	-	300	-
$V_{CE(sat)}$	C to E Saturation Voltage	$I_C = 500mA, I_B = 25mA$	-	-	0.5	V
$fT$	Gain band width product	$V_{CE} = 6V, I_E = -10mA$	-	100	-	MHz

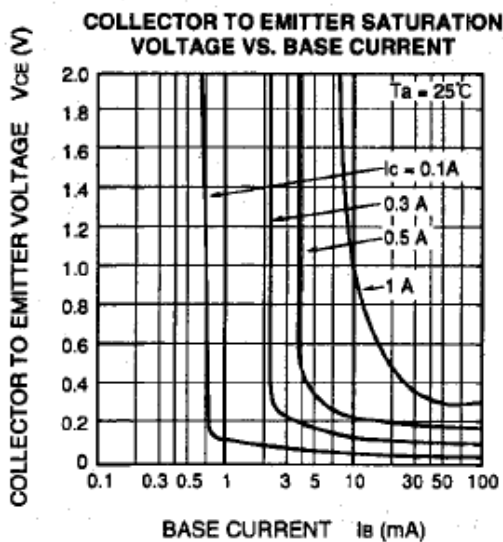
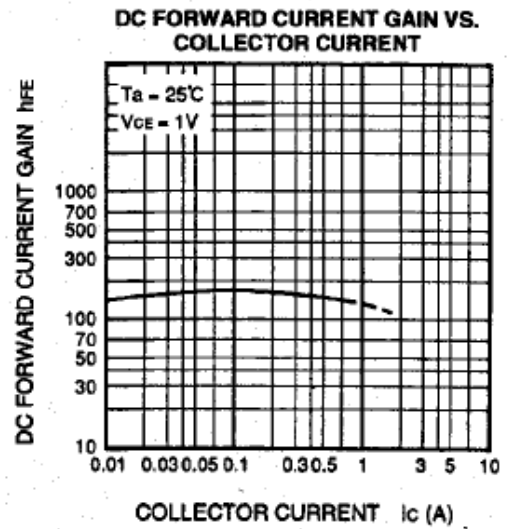
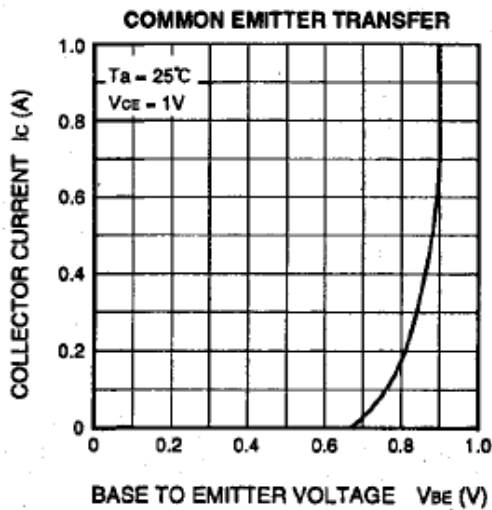
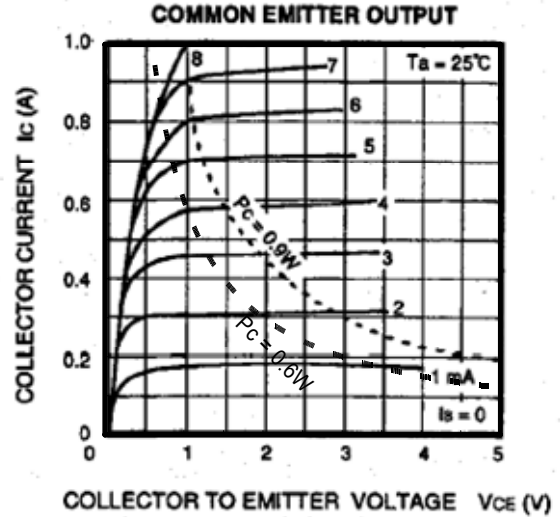
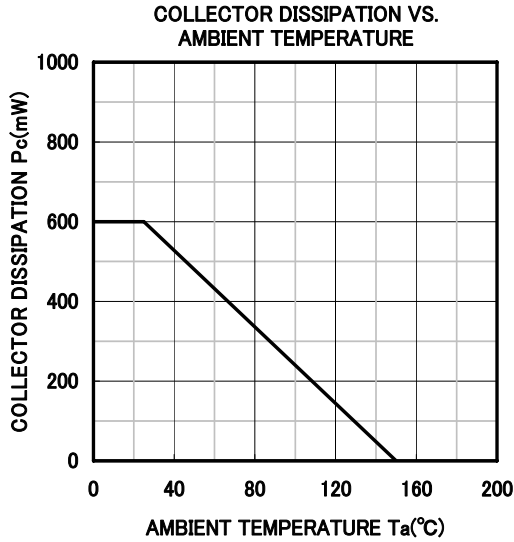
※) It shows  $h_{FE}$  classification in right table.

Item	D	E	F
$h_{FE}$ item	55~110	90~180	150~300

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## TYPICAL CHARACTERISTICS





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