

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

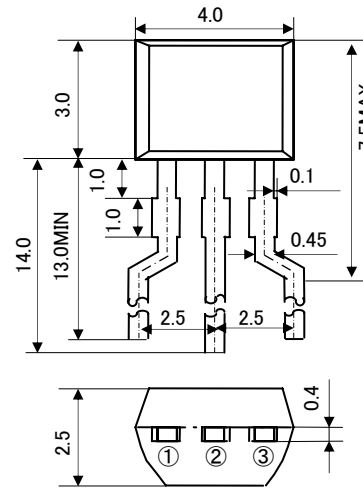
- High collector current. $I_{CM} = 1.5A$
- High gain band width product. $fT = 100MHz$ typ
- High collector dissipation. $P_c = 600mW$
- Excellent linearity of DC forward current gain.

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	μA
I_{EBO}	Emitter cut off current	$V_{EB} = 2V, I_C = 0mA$	-	-	1	μA
$hFE \times$	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

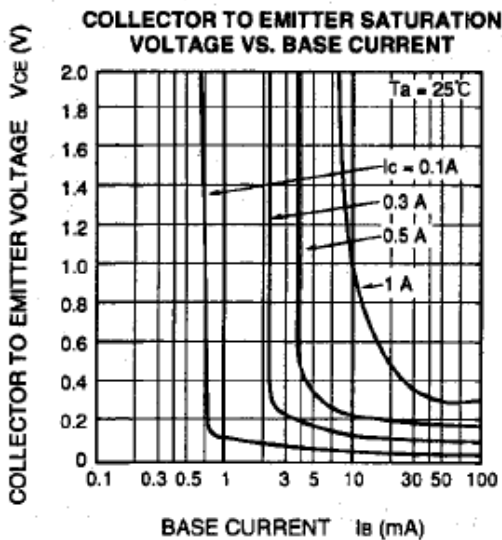
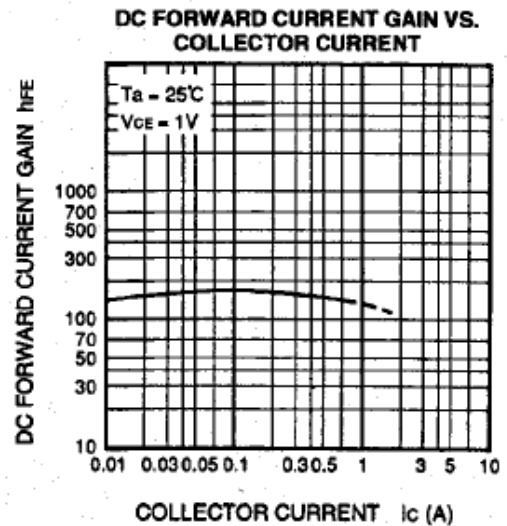
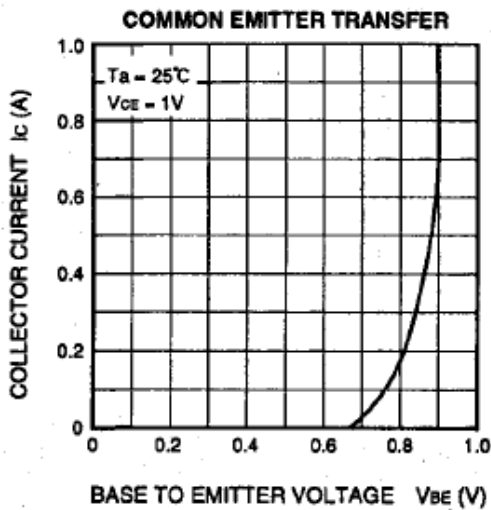
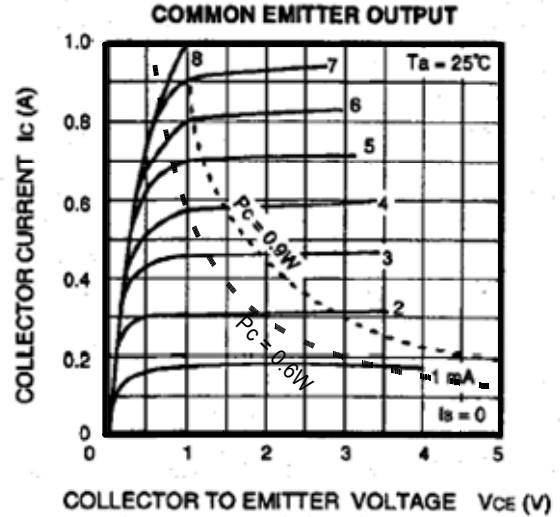
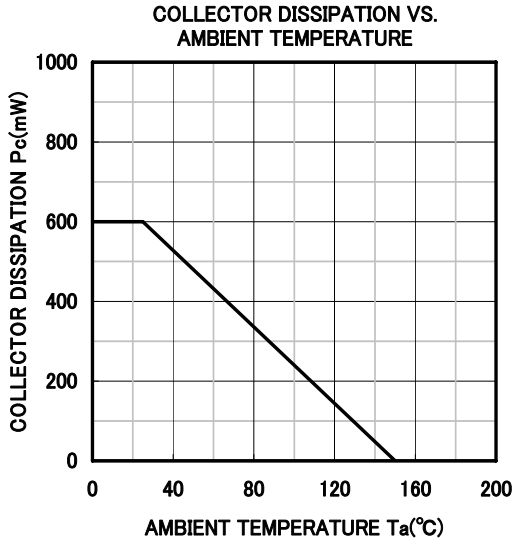
※) It shows hFE classification in right table.

Item	C	D	E
hFE item	55~110	90~180	150~300

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TYPICAL CHARACTERISTICS





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