〈SMALL-SIGNAL TRANSISTOR〉

ISD1447AS1

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

FOR LOW FREQUENCY POWOR 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

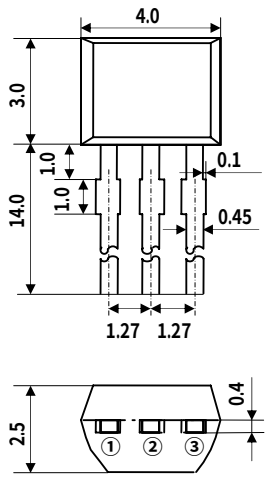
- High collector current. I_{CM}= 1.5A
- High gain band width product. fT= 100MHz typ
- High collecot dissipation. Pc= 600mW
- Excellent linearity of DC forward current gain.

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 (Ta=25°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	°C
T_{stg}	Storage temperature	-55～+150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	I_C= 10μA , I_E =0mA	30	-	-	V
$V_{(BR)EBO}$	E to B break down voltage	I_E= 10μA , I_C =0mA	4	-	-	V
$V_{(BR)CEO}$	C to E break down voltage	I_C= 100μA , R_{BE}= ∞	25	-	-	V
ICBO	Collector cut off current	V_{CB}= 25V , I_E= 0mA	-	-	1	μA
IEBO	Emitter cut off current	V_{EB}=2V , I_C= 0mA	-	-	1	μA
hFE※	DC forward current gain	V_{CE} = 1V , I_C= 500mA	55	-	300	-
VCE(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	D	E	F
hFE item	55～110	90～180	150～300

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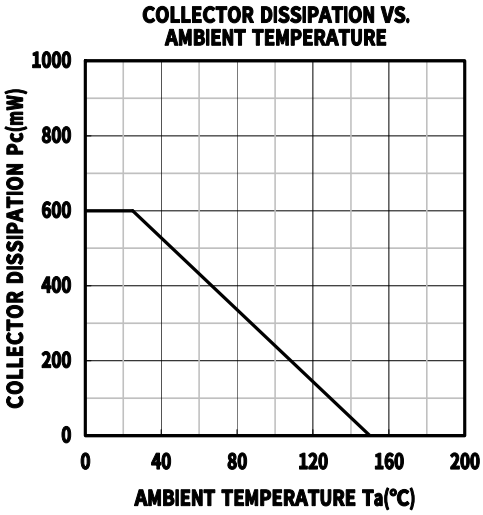
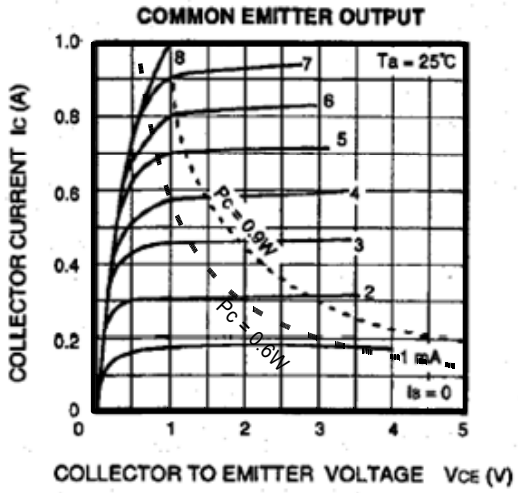
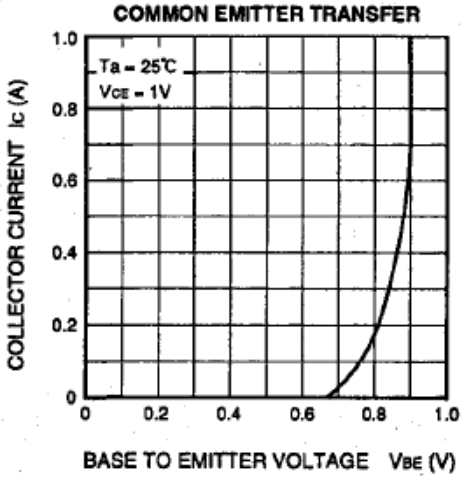
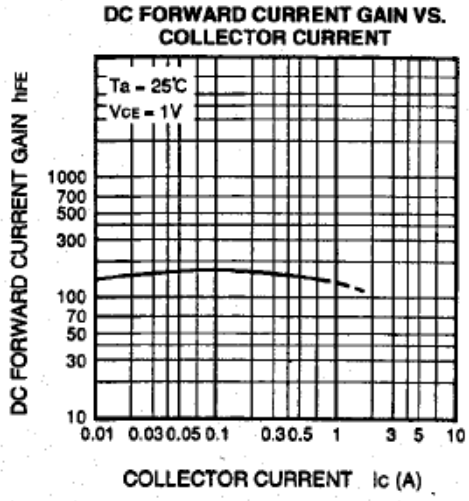
SILICON NPN EPITAXIAL TYPE

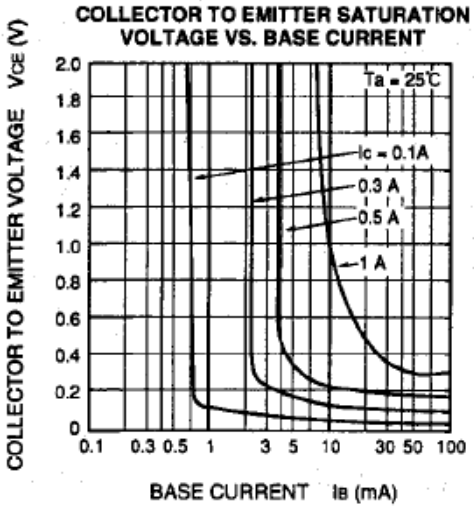
TYPICAL CHARACTERISTICS











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