

<SMALL-SIGNAL TRANSISTOR>

ISA1287AS1

FOR RELAY DRIVE, POWOR SUPPLY APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

ISA1287AS1 is a silicon PNP epitaxial type transistor.

Designed with high voltage, high collector current, dissipation and high hFE.

Complementary with ISC3247AS1.

FEATURE

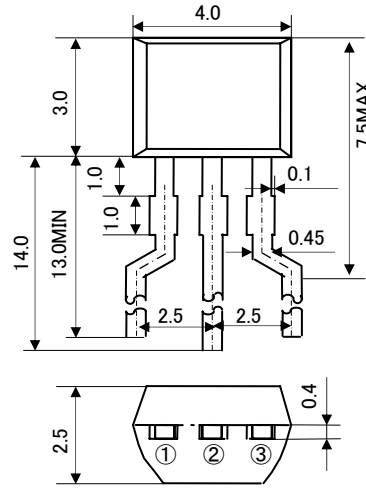
- High hFE hFE=400 to 800
- High voltage. $V_{CE0} = -50V$
- Low collector to emitter saturation voltage.
 $V_{CE(sat)} = -0.2V$ ($I_C = -500mA, I_B = -10mA$)
- High collector dissipation. $P_C = 600mW$

APPLICATION

Relay drive or power supply of audio machine, VCR, and other electronic machine.

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_{CB0}	Collector to Base voltage	-50	V
V_{EB0}	Emitter to Base voltage	-6	V
V_{CE0}	Collector to Emitter voltage	-50	V
I_C	Collector current	-1	A
I_{CM}	Peak collector current	-2	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	
$V_{(BR)CB0}$	C to B break down voltage	$I_C = -10 \mu A, I_E = 0mA$	-50	—	—	V
$V_{(BR)EB0}$	E to B break down voltage	$I_E = -10 \mu A, I_C = 0mA$	-6	—	—	V
$V_{(BR)CE0}$	C to E break down voltage	$I_C = -1mA, R_{BE} = \infty$	-50	—	—	V
I_{CB0}	Collector cut off current	$V_{CB} = -40V, I_E = 0mA$	—	—	-0.1	μA
I_{EB0}	Emitter cut off current	$V_{EB} = -2V, I_C = 0mA$	—	—	-0.1	μA
hFE※	DC forward current gain	$V_{CE} = -6V, I_C = -100mA$	400	—	800	—
$V_{CE(sat)}$	C to E Saturation Voltage	$I_C = -500mA, I_B = -10mA$	—	-0.2	-0.5	V
fT	Gain band width product	$V_{CE} = -10V, I_E = 10mA$	—	90	—	MHz
Cob	Collector output capacitance	$V_{CB} = -10V, I_E = 0mA, f = 1MHz$	—	30	—	pF

※) It shows hFE classification in right table.

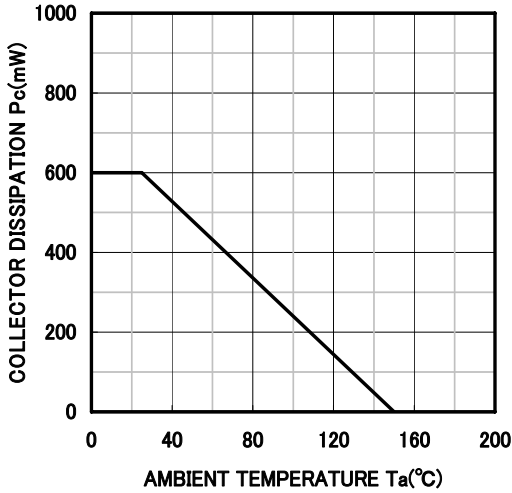
Item	G
hFE	400~800

ISA1287AS1

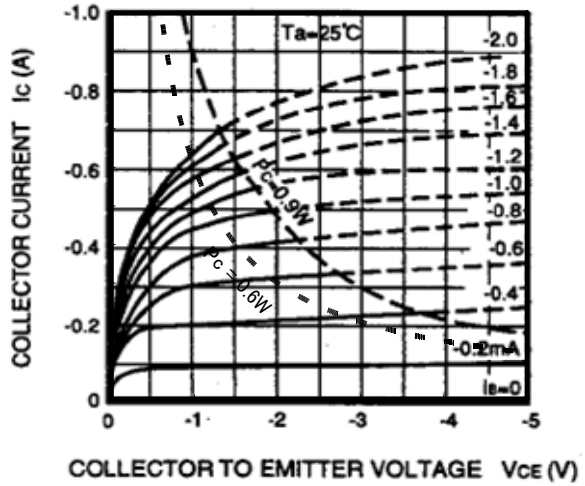
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TYPICAL CHARACTERISTICS

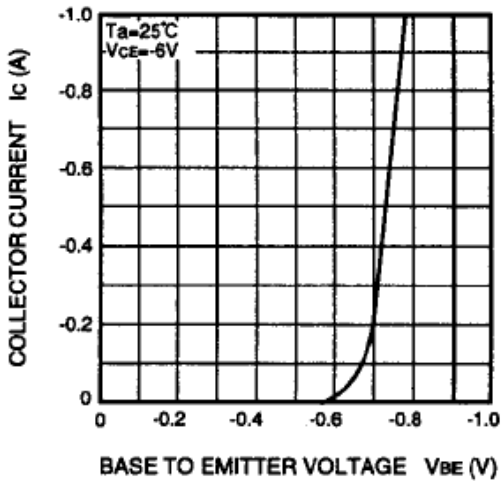
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



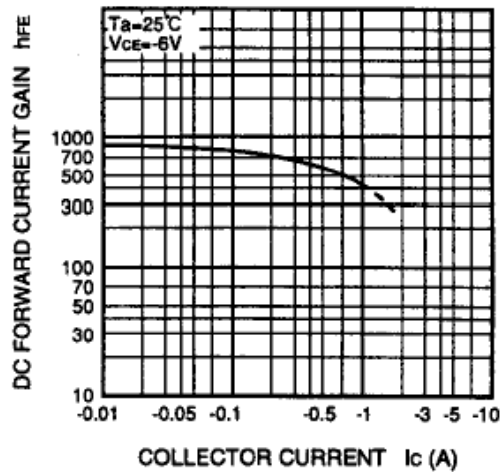
COMMON EMITTER OUTPUT



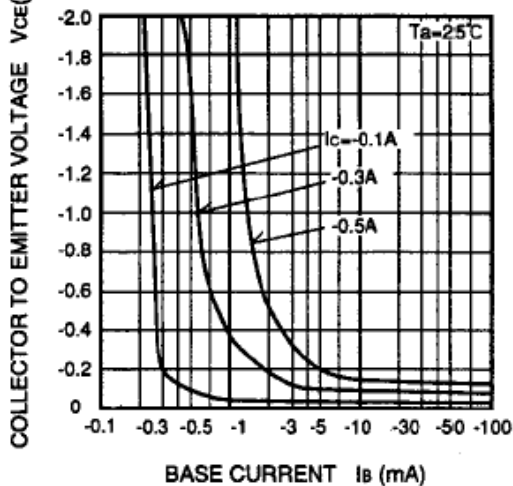
COMMON EMITTER TRANSFER



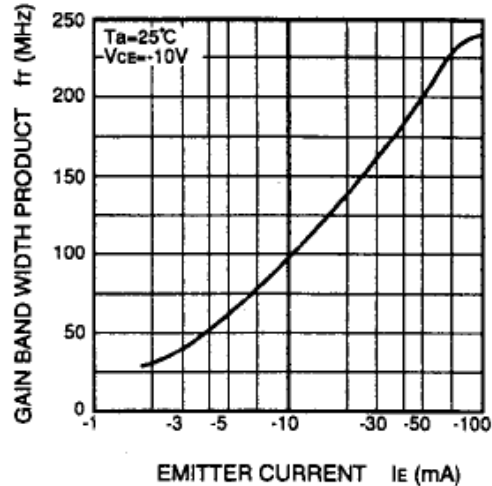
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. BASE CURRENT

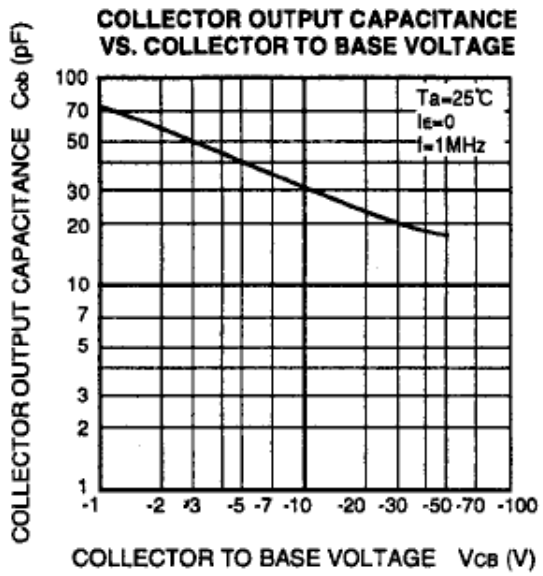


GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



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