〈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.

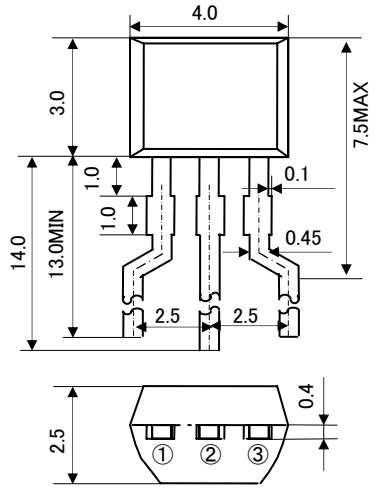
FEATURE

- ●High hFE　hFE=400 to 800
- ●High voltage.　V_{CEO}=−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(Ta=25℃)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	−50	V
V_{EBO}	Emitter to Base voltage	−6	V
V_{CEO}	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	℃
T_{stg}	Storage temperature	−55～＋150	℃

ELECTRICAL CHARACTERISTICS(Ta=25℃)

Parameter	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	IC=−10μA, IE=0mA	−50	—	—	V
$V_{(BR)EBO}$	E to B break down voltage	IE=−10μA, IC=0mA	−6	—	—	V
$V_{(BR)CEO}$	C to E break down voltage	IC=−1mA, RBE=∞	−50	—	—	V
ICBO	Collector cut off current	VCB=−40V, IE=0mA	—	—	−0.1	μA
IEBO	Emitter cut off current	VEB=−2V, IC=0mA	—	—	−0.1	μA
hFE※	DC forward current gain	VCE=−6V, IC=−100mA	400	—	800	—
VCE(sat)	C to E Saturation Voltage	IC=−500mA, IB=−10mA	—	−0.2	−0.5	V
fT	Gain band width product	VCE=−10V, IE=10mA	—	90	—	MHz
Cob	Collector output capacitance	VCB=−10V, IE=0mA, f=1MHz	—	30	—	pF

※) It shows hFE classification in right table.

Item	G
hFE	400～800

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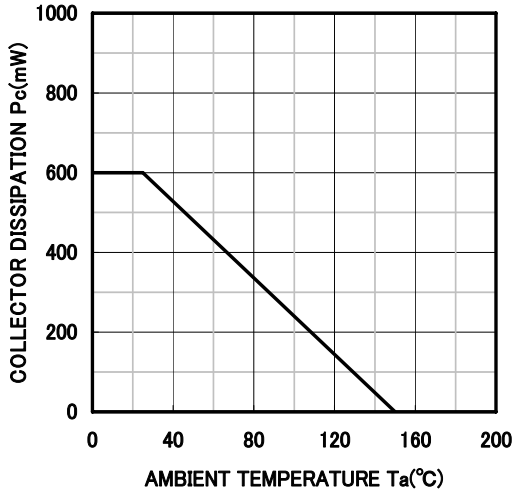
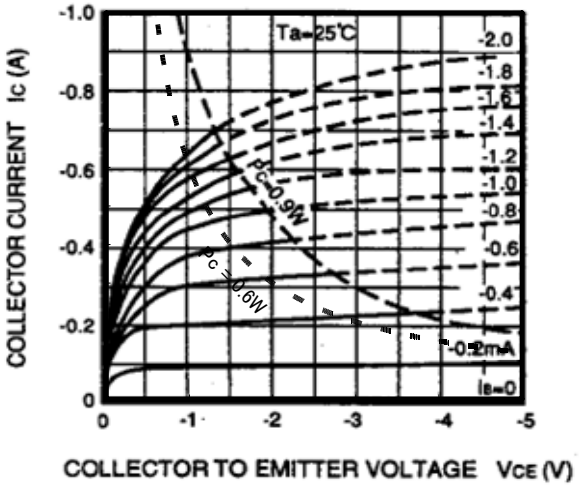
TYPIAL CHARACTERISTICS

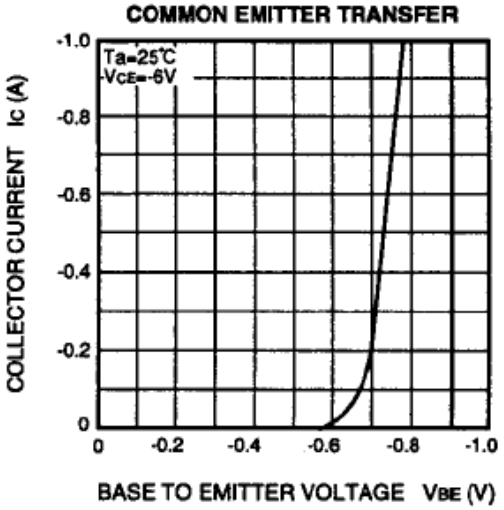
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



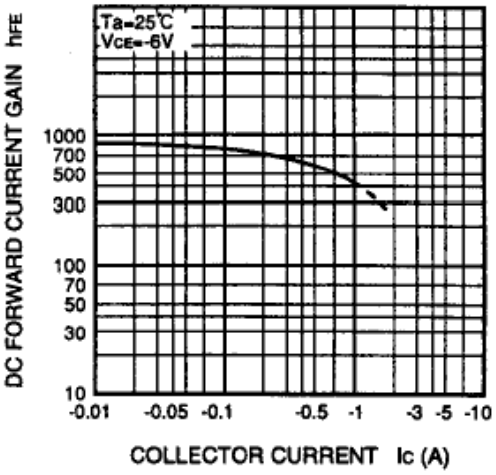
COMMON EMITTER OUTPUT



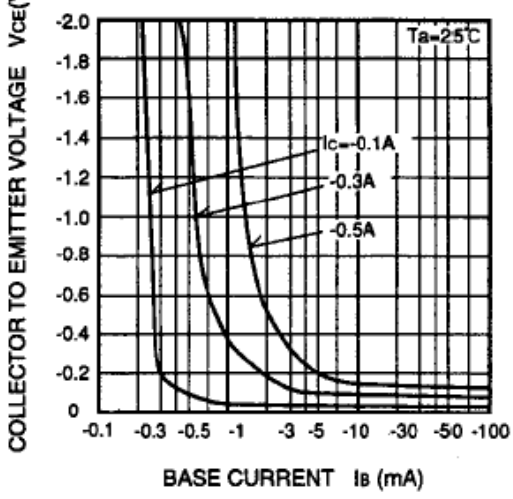
COMMON EMITTER TRANSFER



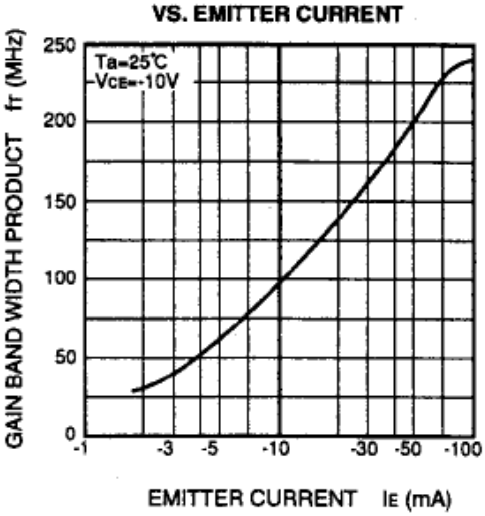
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. BASE CURRENT



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



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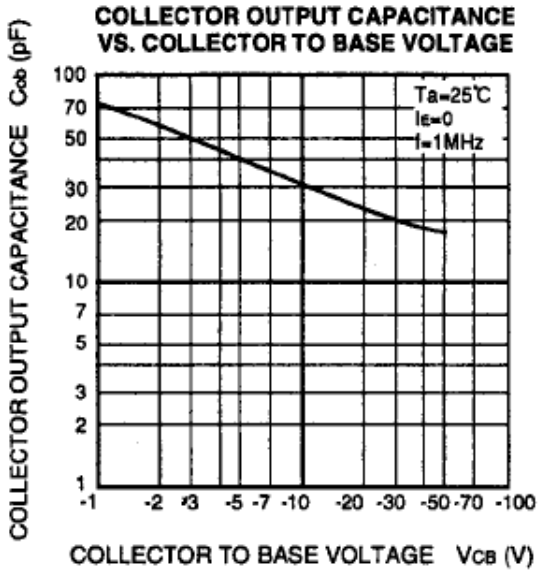

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