〈SMALL-SIGNAL TRANSISTOR〉

ISC3247AS1

FOR RELAY DRIVE, POWOR SUPPLY APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

ISC3247AS1 is a silicon NPN epitaxial type transistor. Designed with high voltage, high collector current, dissipation and high hFE.

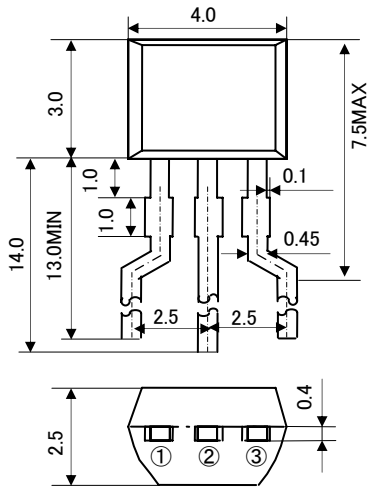
FEATURE

- ●High hFE. hFE=600 to 1800
- ●High voltage. V_{CEo}=50V
- ●Low collector to emitter saturation voltage. V_{CE}(sat)=0.15V (@I_C=500mA, I_B=10mA)
- ●High collector dissipation. P_C=600mW

APPLICATION

Relay drive or power supply for 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	I_C= 10μA , I_E =0mA	50	−	−	V
$V_{(BR)EBO}$	E to B break down voltage	I_E= 10μA , I_C =0mA	6	−	−	V
$V_{(BR)CEO}$	C to E break down voltage	I_C= 1mA , R_{BE}= ∞	50	−	−	V
ICBO	Collector cut off current	V_{CB}= 40V , I_E= 0mA	−	−	0.1	μA
IEBO	Emitter cut off current	V_{EB}=2V , I_C= 0mA	−	−	0.1	μA
hFE※	DC forward current gain	V_{CE} = 6V , I_C= 0.1A	600	−	1800	−
VCE(sat)	C to E Saturation Voltage	I_C=500mA , I_B= 10mA	−	0.15	0.5	V
fT	Gain band width product	V_{CE}= 10V , I_E= −10mA	−	130	−	MHz
Cob	Collector output capacitance	V_{CB}= 10V , I_E= 0mA,f=1MHz	−	12	−	pF

※) It shows hFE classification in right table.

Item	H	J
hFE item	600～1200	900～1800

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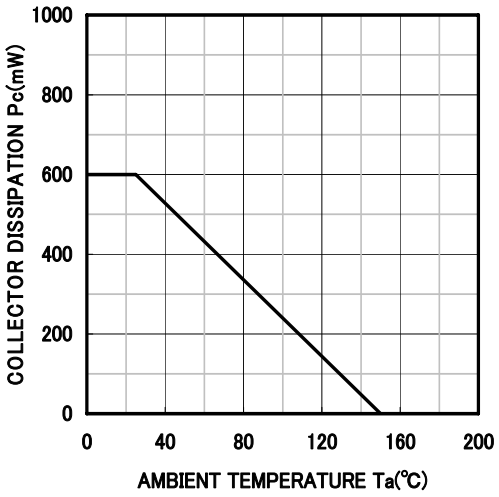
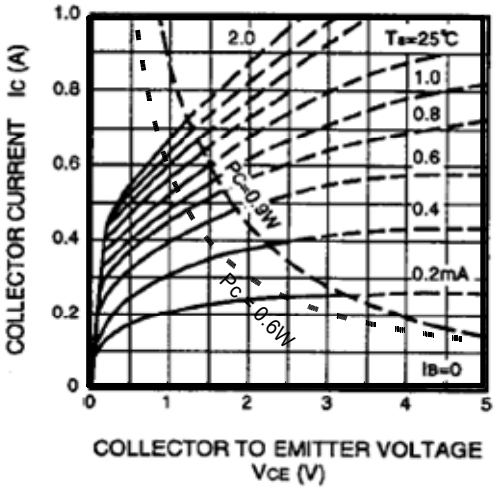
TYPICAL CHARACTERISTICS

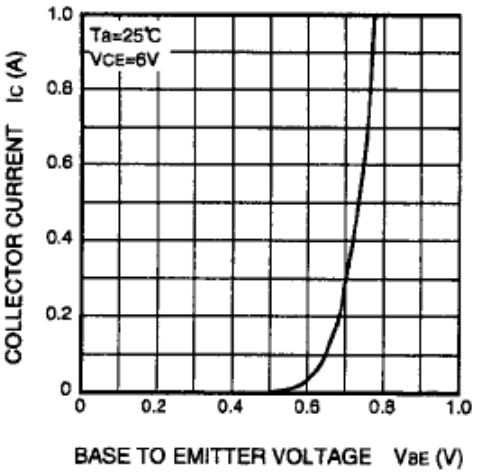
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



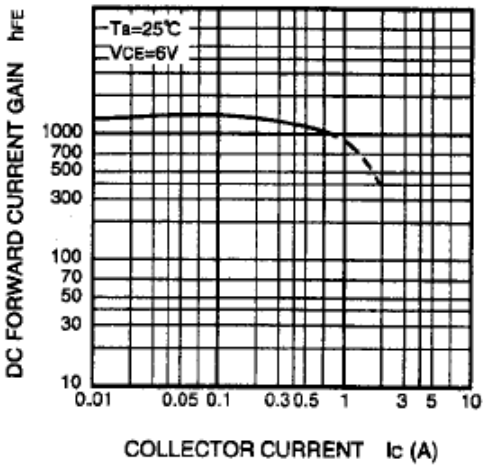
COMMON EMITTER OUTPUT



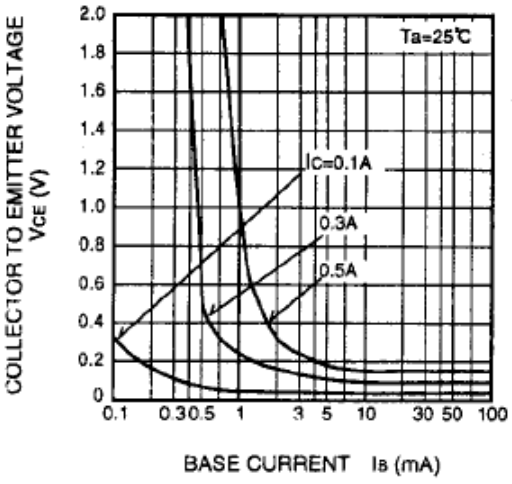
COMMON EMITTER TRANSFER



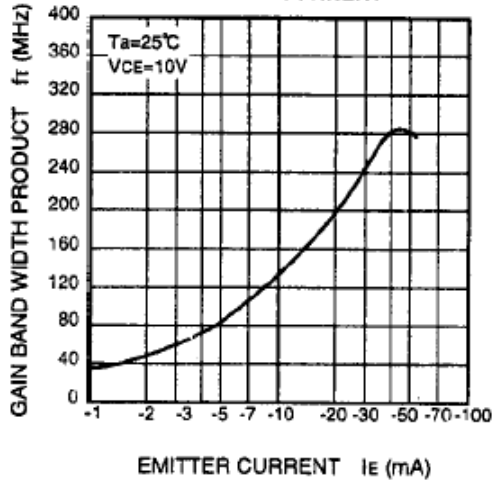
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. BASE CURRENT



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



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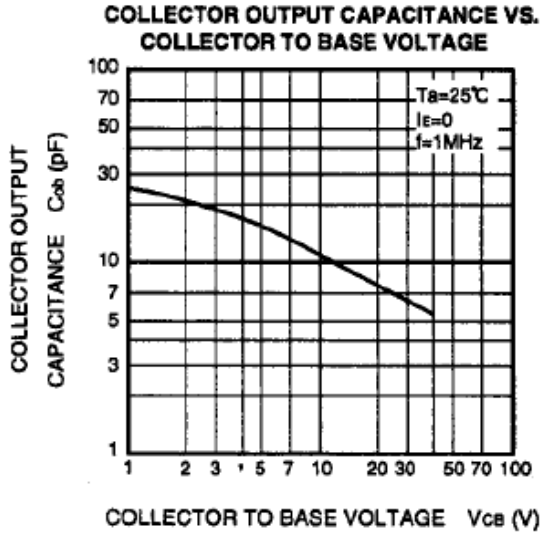

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