〈SMALL-SIGNAL TRANSISTOR〉

ISC3244AS1

FOR LOW FREQUENCY POWOR AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

ISC3244AS1 is a silicon NPN epitaxial type transistor designed with high collector dissipation, high voltage.

Complementary with ISA1284AS1.

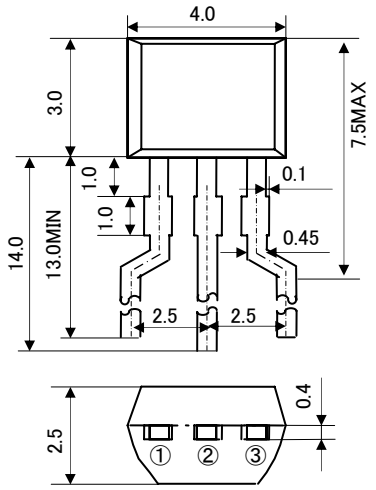
FEATURE

- ●High voltage. V_{CEo}=100V
- ●High peak collector current. I_{CM}=800mA
- ●High gain band width product. fT=130MHz (typ)
- ●High collector dissipation. P_C=600mW

APPLICATION

Drive for 20 to 40W amplifier, relay drive, power supply application.

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	100	V
V_{EBO}	Emitter to Base voltage	5	V
V_{CEO}	Collector to Emitter voltage	100	V
I_C	Collector current	500	mA
I_{CM}	Peak collector current	800	mA
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	100	−	−	V
$V_{(BR)EBO}$	E to B break down voltage	I_E= 10μA , I_C =0mA	5	−	−	V
$V_{(BR)CEO}$	C to E break down voltage	I_C= 1mA , R_{BE}= ∞	100	−	−	V
ICBO	Collector cut off current	V_{CB}= 50V , I_E= 0mA	−	−	0.5	μA
IEBO	Emitter cut off current	V_{EB}=2V , I_C= 0mA	−	−	0.5	μA
hFE※	DC forward current gain	V_{CE} = 10V , I_C= 10mA	55	−	300	−
VCE(sat)	C to E Saturation Voltage	I_C=150mA , I_B= 15mA	−	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	−	6.5	−	pF

※) It shows hFE classification in right table.

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

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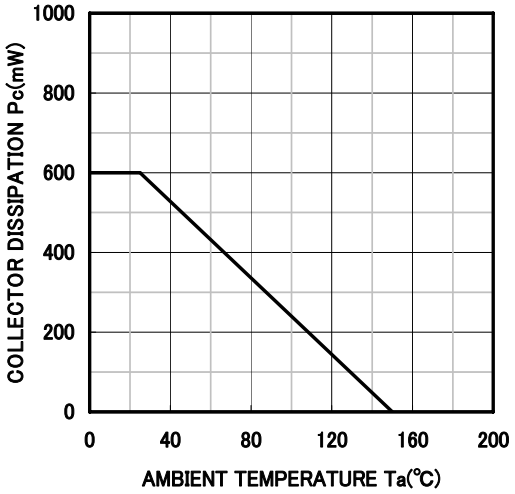
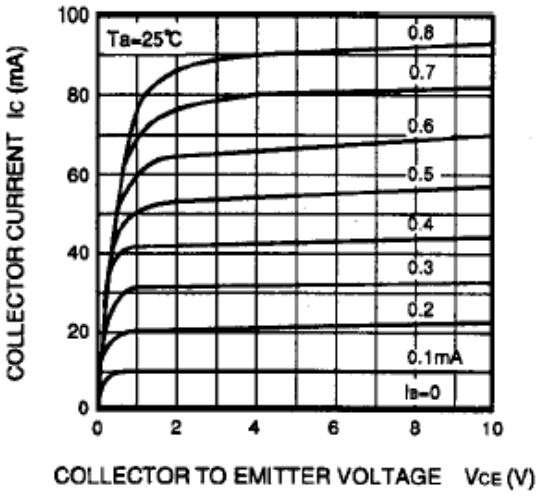
TYPICAL CHARACTERISTICS

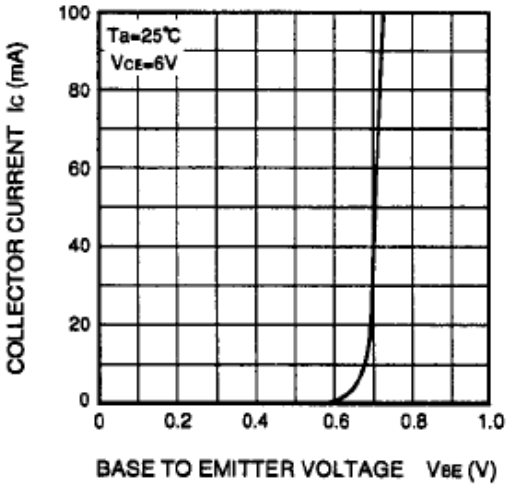
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



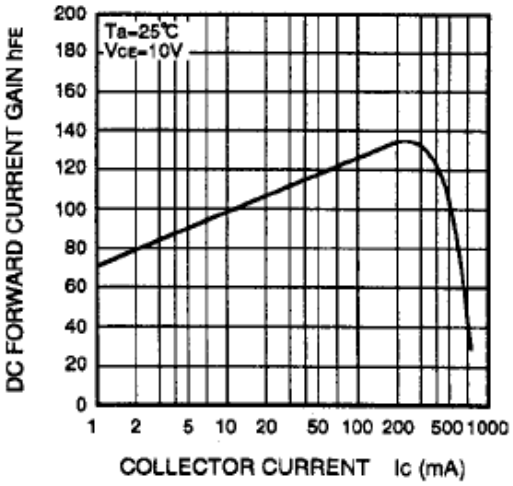
COMMON EMITTER OUTPUT



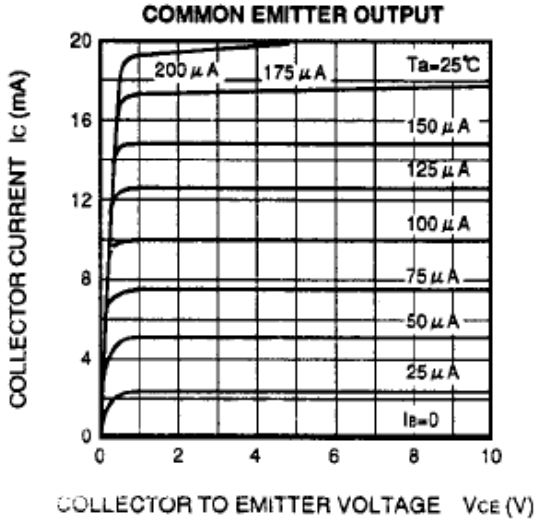
COMMON EMITTER TRANSFER



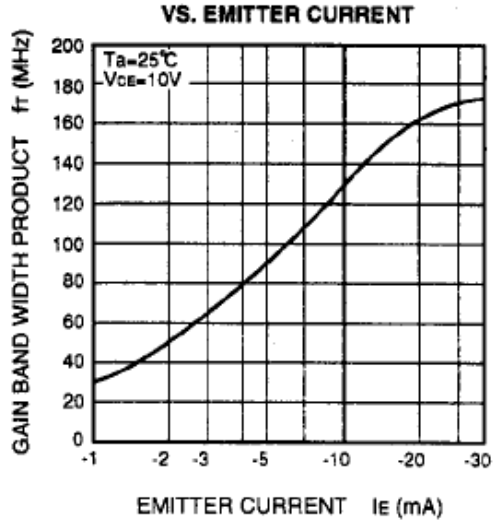
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



COMMON EMITTER OUTPUT



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



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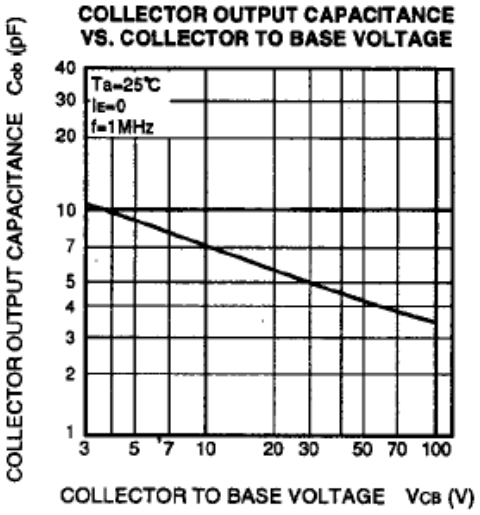

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