〈SMALL-SIGNAL TRANSISTOR〉

2SA1368

FOR HIGH VOLTAGE DRIVE APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

A1368 is a silicon PNP epitaxial type transistor. It designed with high collector dissipation, high voltage.

Complementary with 2SC3438.

FEATURE

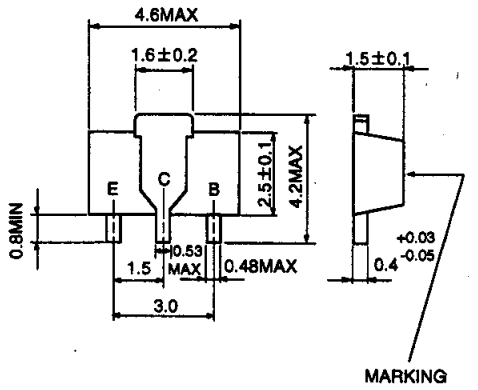
- High voltage V_{CEO}=-100V
- High collector current (I_{CM}=-800mA)
- High gain band width product f_T=130MHz typ
- High collector dissipation P_C=500mW
- Small package for mounting

APPLICATION

Relay drive power supply etc.

OUTLINE DRAWING

Unit:mm



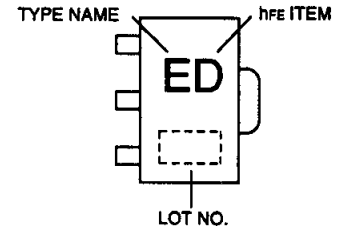
TERMINAL CONNECTOR

E : EMITTER
C : COLLECTOR
B : BASE

EIAJ : SC-62
JEDEC : –

Note)
The dimension without tolerance represent central value.

MARKING



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_{CM}	Peak Collector current	-800	mA
I_C	Collector current	-500	mA
P_C	Collector dissipation(Ta=25℃)	500	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	-55 to +150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	I_C=-10μA,I_E=0	-100			V
$V_{(BR)EBO}$	E to B break down voltage	I_E=-10μA,I_C=0	-5			V
$V_{(BR)CEO}$	C to E break down voltage	I_C=-1mA,R_{BE}=∞	-100			V
I_{CBO}	Collector cut off current	V_{CB}=-50V,I_E=0			-0.5	μA
I_{EBO}	Emitter cut off current	V_{EB}=-2V,I_C=0			-0.5	μA
h_{FE} *	DC forward current gain	V_{CE}=-10V,I_C=-10mA	55		300	—
$V_{CE(sat)}$	C to E saturation voltage	I_C=-150mA,I_B=-15mA		-0.15	-0.5	V
f_T	Gain band width product	V_{CE}=-10V,I_E=10mA		130		MHz
C_{ob}	Collector output capacitance	V_{CB}=-10V,I_E=0, f=1MHz		11		pF

* : It shows h_{FE} classification in right table.

Marking	EC	ED	EE
h_{FE}	55 to 110	90 to 180	150 to 300

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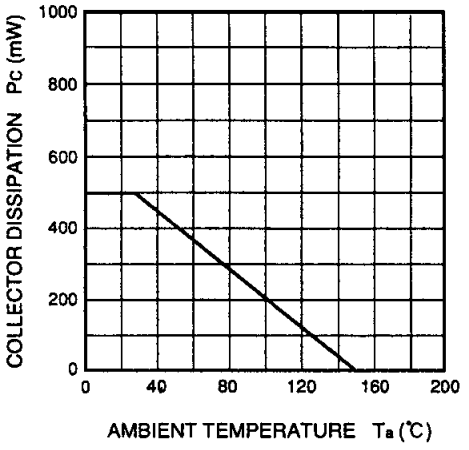
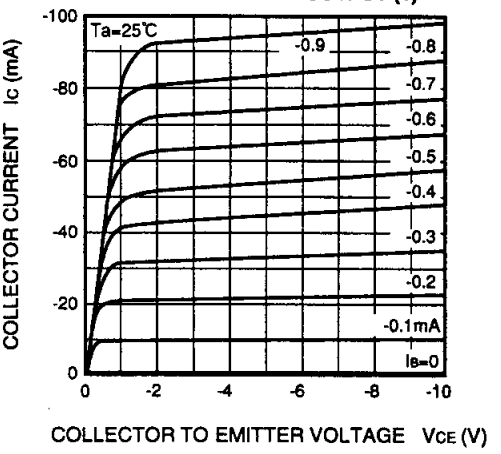
TYPICAL CHARACTERISTICS

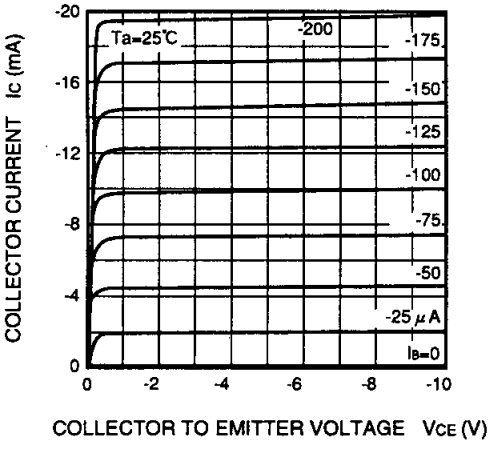
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



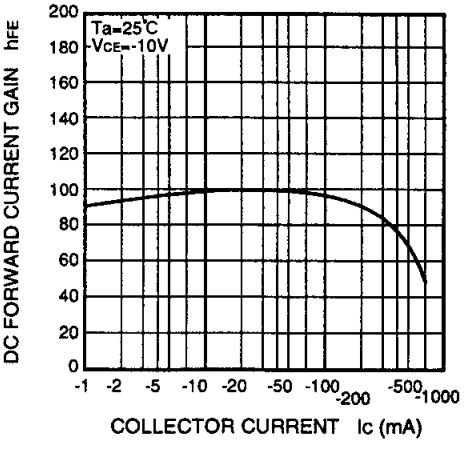
COMMON EMITTER OUTPUT (1)



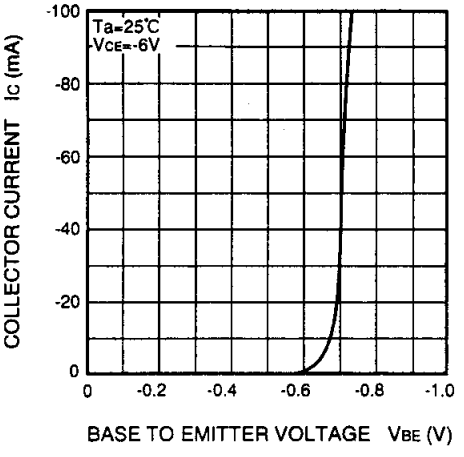
COMMON EMITTER OUTPUT (2)



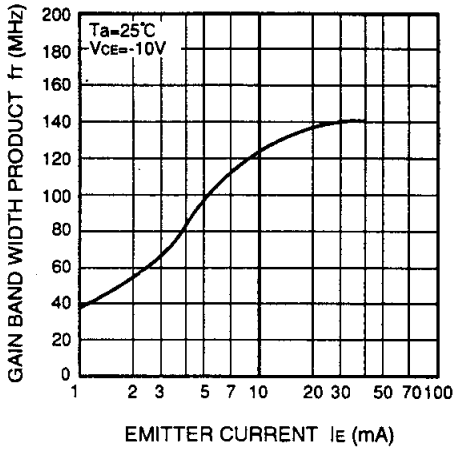
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



COMMON EMITTER TRANSFER



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



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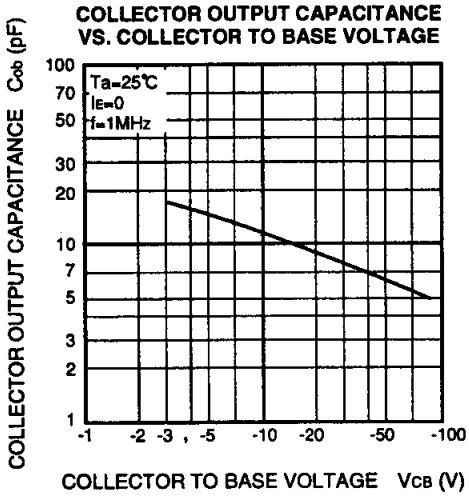

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