2SA2027

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

2SA2027 is a silicon PNP epitaxial type transistor. It is designed with high voltage application.

FEATURE

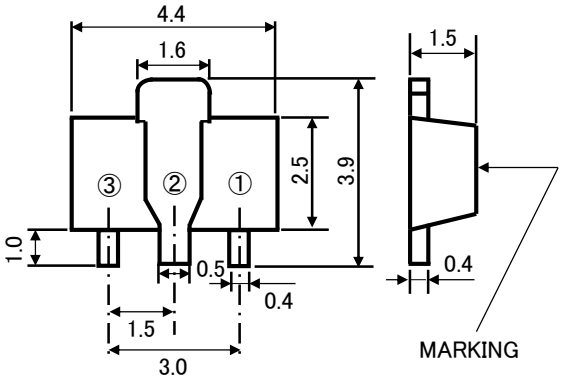
- Small collector to emitter saturation voltage
  VCE(sat)=−0.5V max (@IC=−100mA/IB=−10mA)
- Small package for easy mounting

APPLICATION

Hybrid IC, DC−DC converter

OUTLINE DRAWING

UNIT : mm



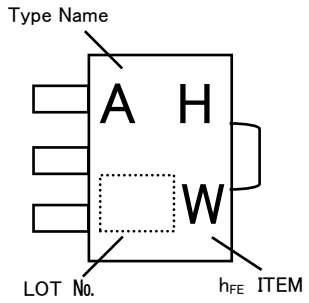
TERMINAL CONNECTOR
①: BASE
②: COLLECTOR
③: EMITTER

JEITA : SC−62
JEDEC : SOT−89

MAXIMUM RATING (Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	−300	V
V_{EBO}	Emitter to Base voltage	−7	V
V_{CEO}	Collector to Emitter voltage	−300	V
I_C	Collector current	−100	mA
P_C	Collector dissipation(Ta=25℃)	500	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

MARKING

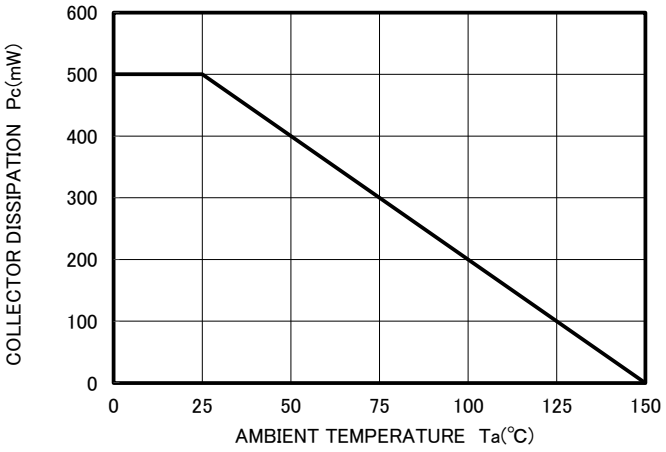


ELECTRICAL CHARACTERISTICS (Ta=25℃)

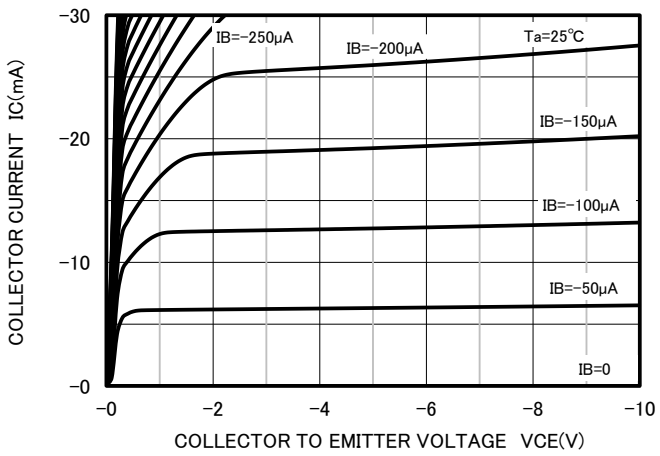
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B breakdown voltage	I_C=−50 μA, I_E=0mA	−300	−	−	V
$V_{(BR)EBO}$	E to B breakdown voltage	I_E=−50 μA, I_C=0mA	−7	−	−	V
$V_{(BR)CEO}$	C to E breakdown voltage	I_C=−1mA, R_{BE}=∞	−300	−	−	V
I_{CBO}	Collector cut off current	V_{CB}=−300V, I_E=0mA	−	−	−0.5	μA
I_{EBO}	Emitter cut off current	V_{EB}=−5V, I_C=0mA	−	−	−0.5	μA
h_{FE}	DC forward current gain	V_{CE}=−10V, I_C=−10mA	50	−	305	−
$V_{CE(sat)}$	C to E saturation voltage	I_C=−100mA, I_B=−10mA	−	−	−0.5	V
fT	Gain bandwidth product	V_{CE}=−6V, I_E=10mA	−	40	−	MHz
Cob	Collector output capacitance	V_{CE}=−6V, I_E=0mA, f=1MHz	−	3.0	−	pF

TYPICIAL CHARACTERISTICS

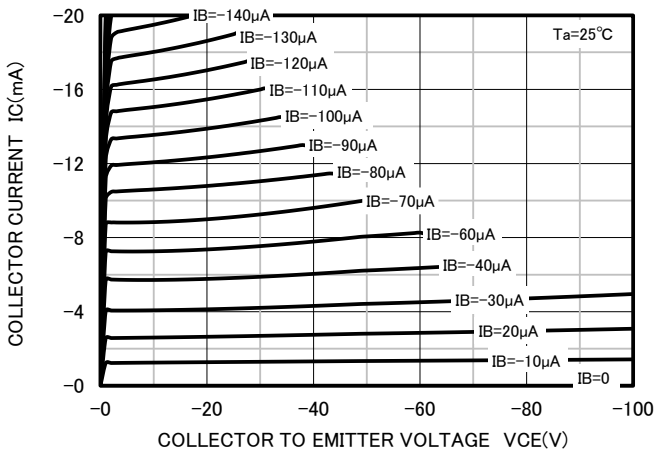
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



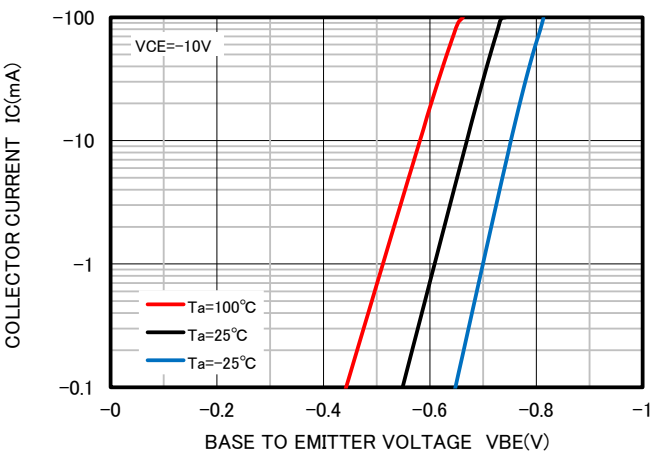
COMMON EMITTER OUTPUT(1)



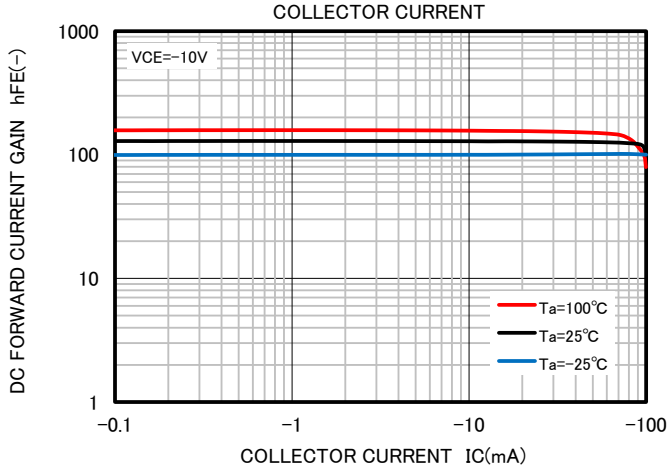
COMMON EMITTER OUTPUT(2)



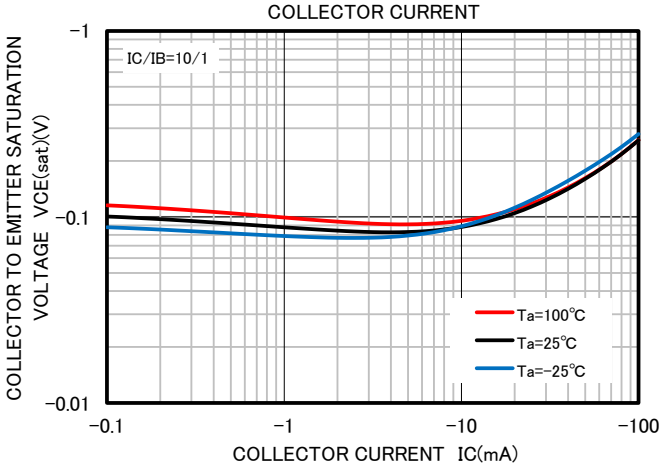
COMMON EMITTER TRANSFER



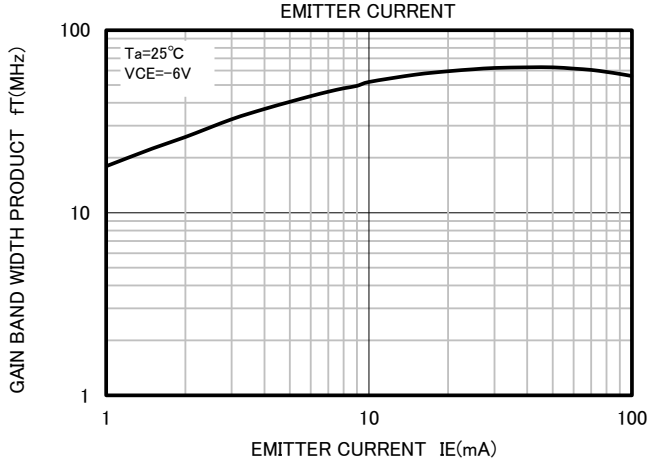
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



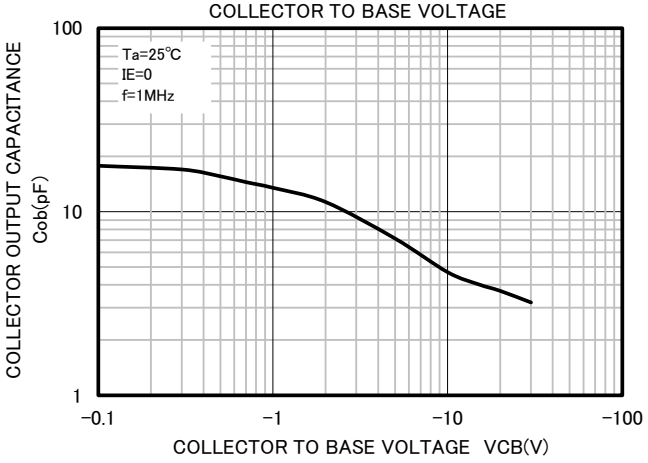
COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



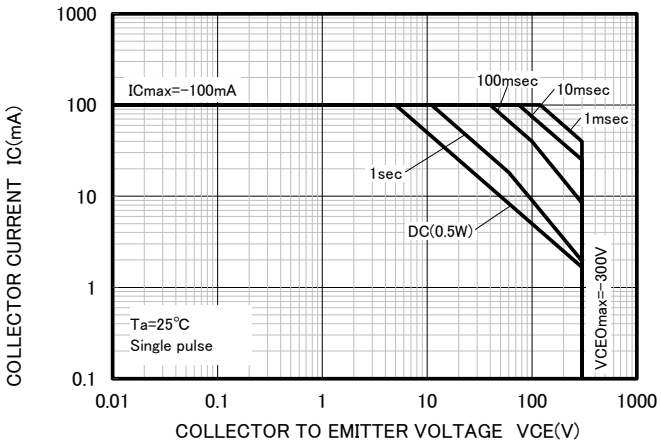
GAIN BAND WIDTH PRODUCT VS.
EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE VS.
COLLECTOR TO BASE VOLTAGE



ASO



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