

2SA2167-TH51

FOR HIGH CURRENT DRIVE APPLICATION
SILICON PNP EPITAXIAL TYPE

AEC-Q101 Compliance

DESCRIPTION

2SA2167 is a silicon PNP epitaxial type transistor. It is designed with high voltage, high collector current, high collector dissipation.

FEATURE

- High voltage $V_{CE0} = -60V$
- High Collector current $I_C = -2A$
- Low Collector to Emitter saturation voltage
 $V_{CE(sat)} = 0.5V_{Max}$ ($@I_C = -1A / I_B = -50mA$)
- High Collector dissipation $PC = 500mW$

APPLICATION

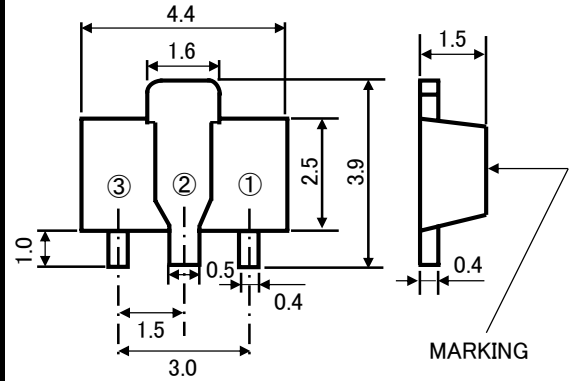
Audiovisual apparatus, VTR, Relay drive

MAXIMUM RATINGS ($T_a = 25^\circ C$)

Symbol	Parameter	Ratings	Unit
V_{CB0}	Collector to Base voltage	-60	V
V_{EB0}	Emitter to Base voltage	-6	V
V_{CE0}	Collector to Emitter voltage	-60	V
I_C	Collector current	-2	A
I_{CM}	Peak Collector current	-3	A
P_C	Collector dissipation	500	mW
T_j	Junction temperature	150	$^\circ C$
T_{stg}	Storage temperature	-55 ~ 150	$^\circ C$

OUTLINE DRAWING

Unit: mm



TERMINAL CONNECTOR

①: BASE

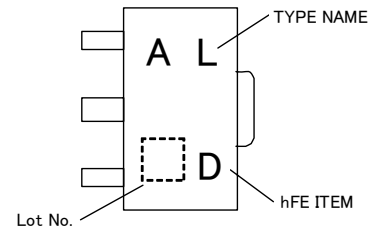
②: COLLECTOR

③: EMITTER

JEITA: SC-62

JEDEC: SOT-89

MARKING



ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

Symbol	Parameter	Test condition	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CB0}$	Collector to Base brake down voltage	$I_C = -10\mu A, I_E = 0mA$	-60	-	-	V
$V_{(BR)EB0}$	Emitter to Base brake down voltage	$I_E = -10\mu A, I_C = 0mA$	-6	-	-	V
$V_{(BR)CE0}$	Collector to Emitter brake down voltage	$I_C = -2mA, R_{BE} = \infty$	-60	-	-	V
I_{CBO}	Collector cut off current	$V_{CB} = -50V, I_E = 0mA$	-	-	-0.2	μA
I_{EBO}	Emitter cut off current	$V_{EB} = -4V, I_C = 0mA$	-	-	-0.2	μA
$h_{FE} \times$	DC forward current gain	$V_{CE} = -4V, I_C = -100mA$	55	-	300	-
$V_{CE(sat)}$	Collector to Emitter saturation voltage	$I_C = -1A, I_B = -50mA$	-	-0.2	-0.5	V
f_T	Gain band width product	$V_{CE} = -2V, I_E = 10mA$	-	65	-	MHz
C_{ob}	Collector output capacitance	$V_{CB} = 10V, I_E = 0mA, f = 1MHz$	-	23	-	pF

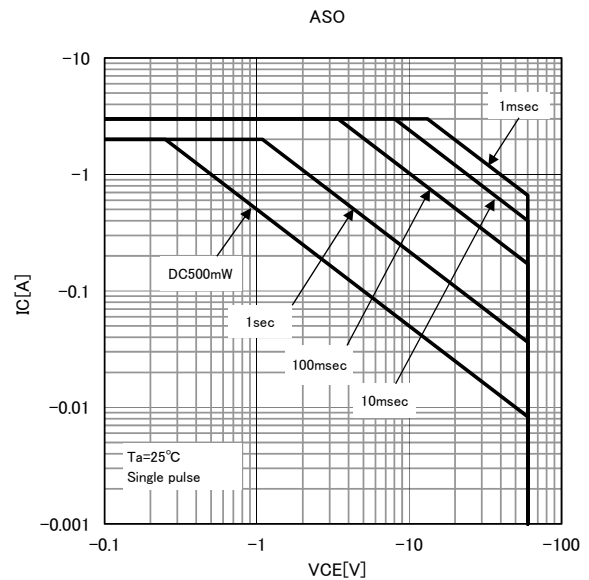
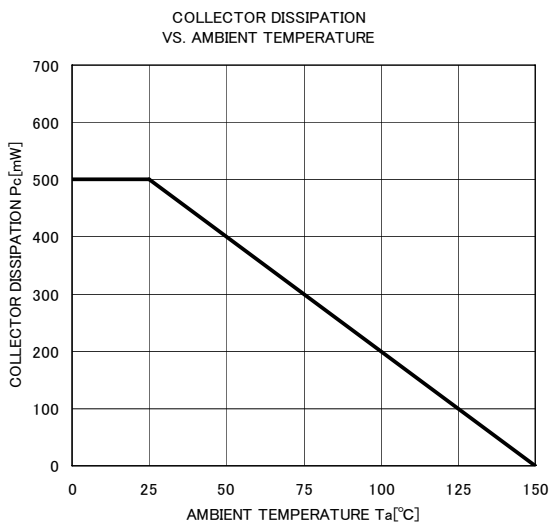
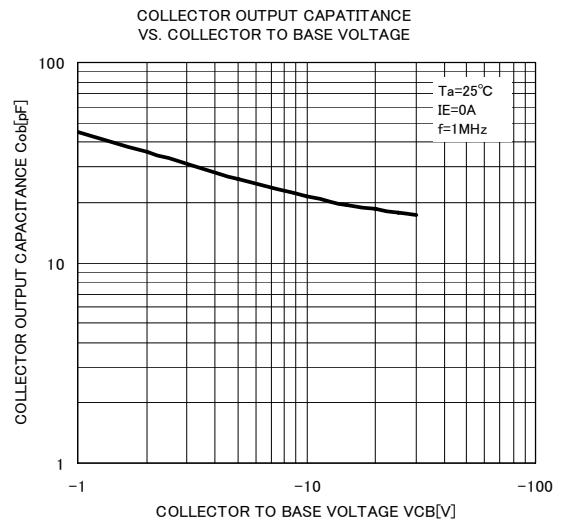
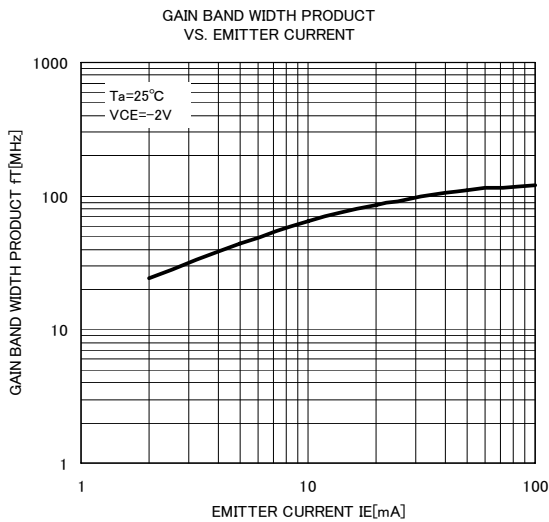
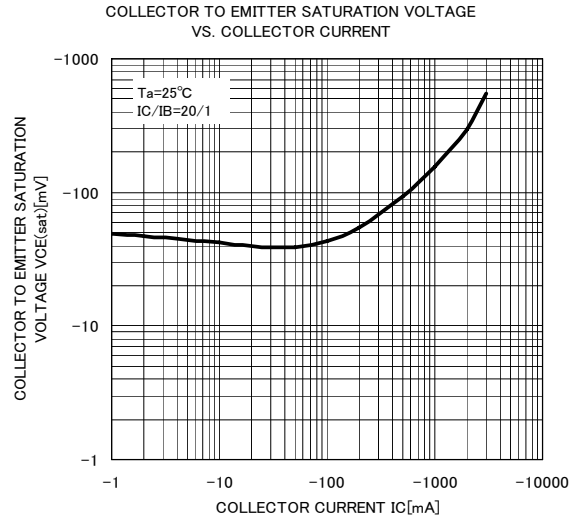
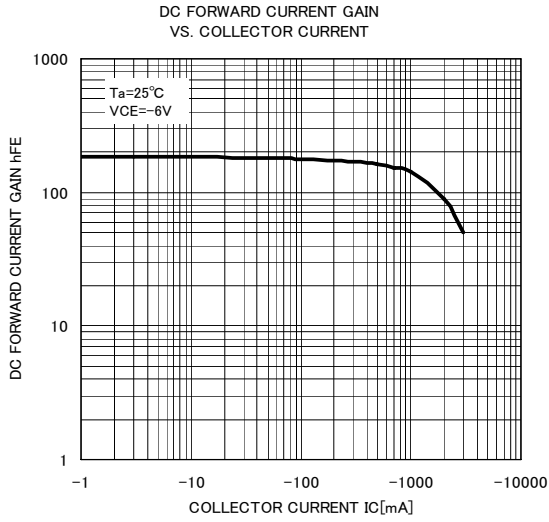
※) It shows h_{FE} classification at right table.

Item	C	D	E
h_{FE}	55 ~ 110	90 ~ 180	150 ~ 300

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TYPICAL CHARACTERISTICS





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