RT1P441U-T150

Transistor With Resistor
For Switching Application
Silicon PNP Epitaxial Type

AEC-Q101 Compliance

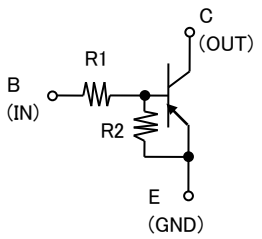
FEATURE

- Built-in bias resistor (R1=47kΩ,R2=47kΩ)
- Mini package for easy mounting

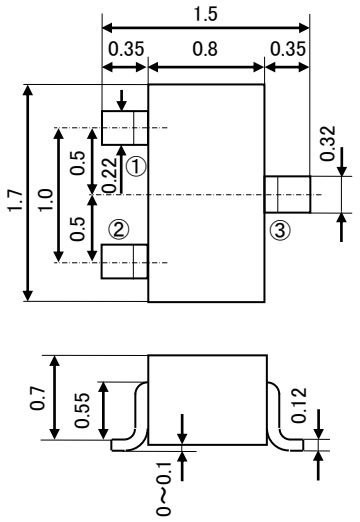
APPLICATION

Inverted circuit, switching circuit, interface circuit, driver circuit.

Equivalent circuit



OUTLINE DRAWING UNIT : mm



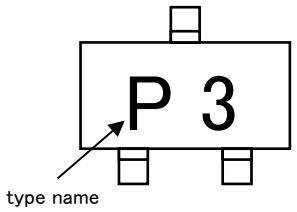
Terminal Connector
①: Base
②: Emitter
③: Collector

JEITA : SC-75A
JEDEC : —

MAXIMUM RATING (Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	−50	V
V_{EBO}	Emitter to Base voltage	−10	V
V_{CEO}	Collector to Emitter voltage	−50	V
V_{IN}	Input voltage	−40	V
I_C	Collector current	−100	mA
I_{CM}	Peak Collector current	−200	mA
P_C	Collector dissipation	150	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

MARKING

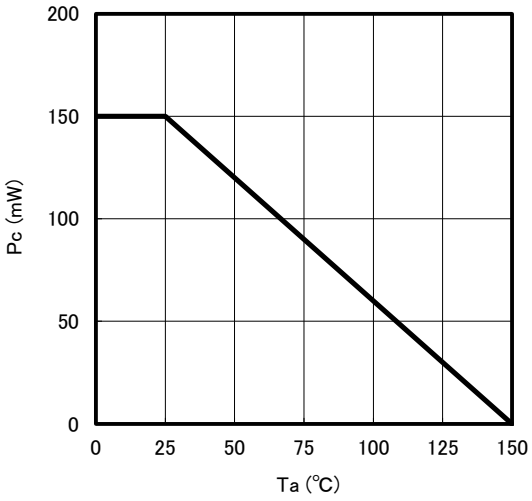


ELECTRICAL CHARACTERISTICS (Ta=25℃)

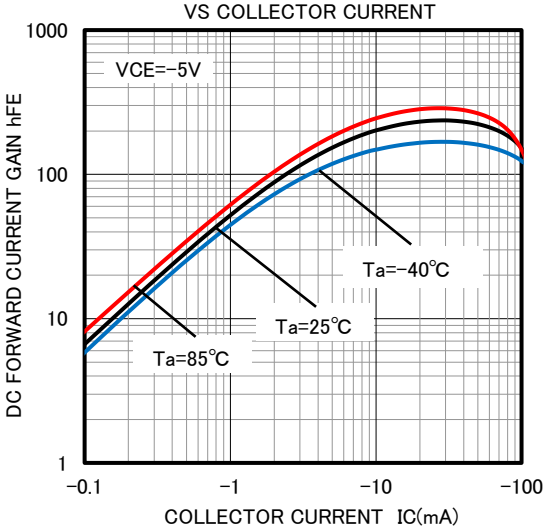
SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
$V_{(BR)CEO}$	C to E breakdown voltage	I_C=−100μA、R_{BE}=∞	−50	—	—	V
I_{CBO}	Collector cut off current	V_{CB}=−50V、I_E=0	—	—	−0.1	μA
I_{EBO}	Emitter cut off current	V_{EB}=−5V、I_C=0	−41	−53	−76	μA
h_{FE}	DC forward current gain	V_{CE}=−5V、I_C=−5mA	50	—	—	—
$V_{CE(sat)}$	C to E saturation voltage	I_C=−10mA、I_B=−0.5mA	—	−0.1	−0.3	V
$V_{I(ON)}$	Input on voltage	V_{CE}=−0.2V、I_C=−5mA	—	−2.2	−5.0	V
$V_{I(OFF)}$	Input off voltage	V_{CE}=−5V、I_C=−100μA	−0.8	−1.1	—	V
R1	Input resistor	−	33	47	61	kΩ
R2/R1	Resistor ratio	−	0.9	1.0	1.1	—
f_T	Gain band width product	V_{CE}=−6V、I_E=10mA	—	150	—	MHz

TYPICAL CHARACTERISTICS

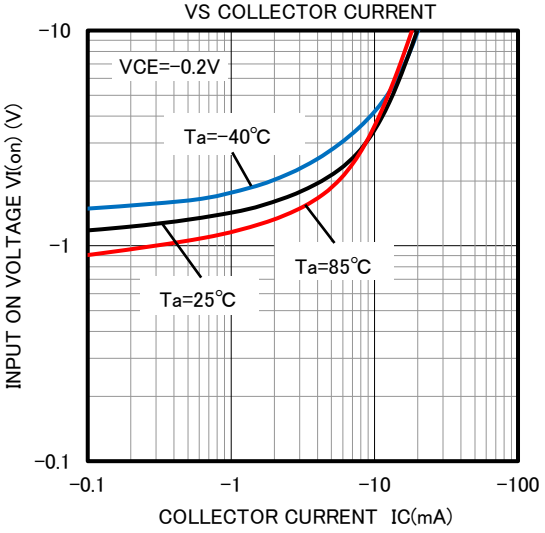
Pc-Ta



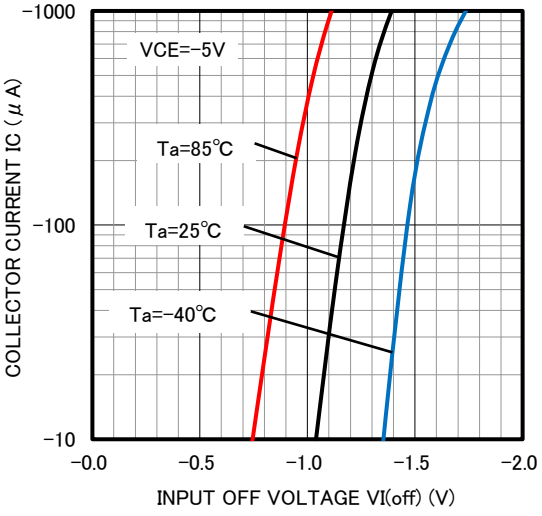
DC FORWARD CURRENT GAIN
VS COLLECTOR CURRENT



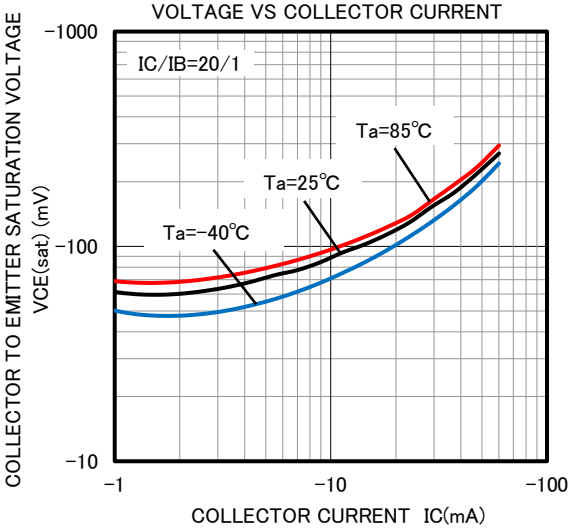
INPUT ON VOLTAGE
VS COLLECTOR CURRENT



COLLECTOR CURRENT
VS INPUT OFF VOLTAGE



COLLECTOR TO EMITTER SATURATION
VOLTAGE VS COLLECTOR CURRENT



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