RT3T55U

Composite Transistor With Resistor
For Switching Application
Silicon Epitaxial Type

DESCRIPTION

RT3T55U is a composite transistor built with RT1N144 chip and RT1P144 chip in USM6F package.

FEATURE

Silicon epitaxial type
Each transistor elements are independent.
Mini package for easy mounting

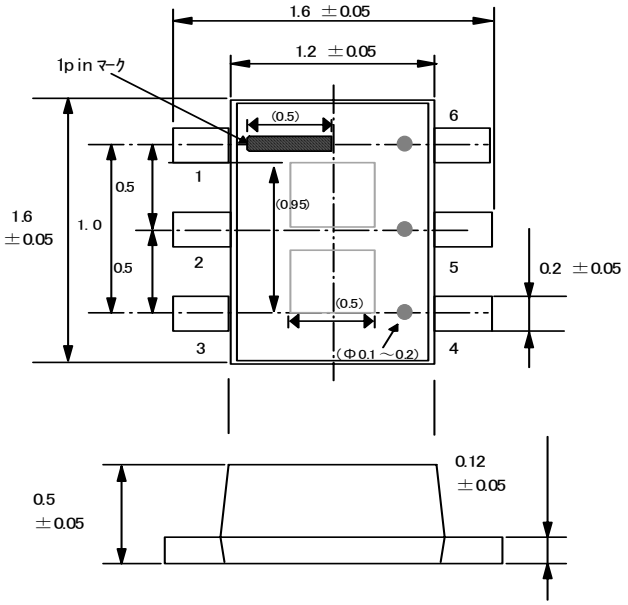
APPLICATION

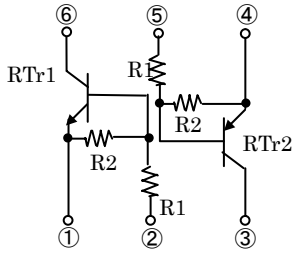
Inverted circuit, switching circuit,
interface circuit, driver circuit

※PNP built in transistor of "−"sign is abbreviation.

OUTLINE DRAWING

Unit : mm





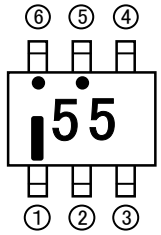
TERMINAL
CONNECTOR
①: EMITTER1
②: BASE1
③: COLLECTOR2
④: EMITTER2
⑤: BASE2
⑥: COLLECTOR1

JEITA: −
ISAHAYA: USM6F

MAXIMUM RATING (Ta=25℃) (Tr1, Tr2 common)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	50	V
V_{EBO}	Emitter to Base voltage	6	V
V_{CEO}	Collector to Emitter voltage	50	V
I_C	Collector current	100	mA
I_{CM}	Peak Collector current	200	mA
P_C	Collector dissipation (Total, Ta=25℃)	125	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	-55～+150	℃

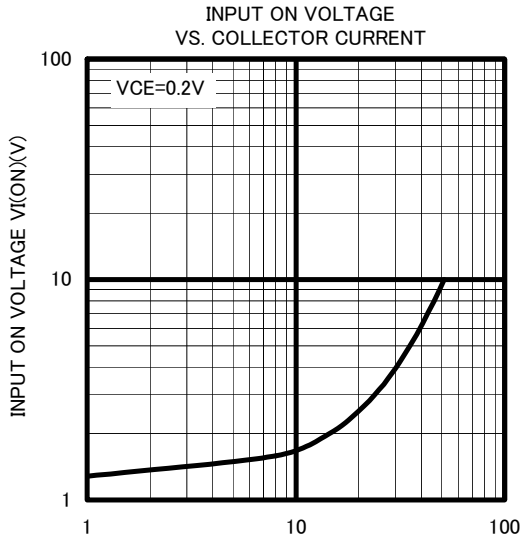
MARKING

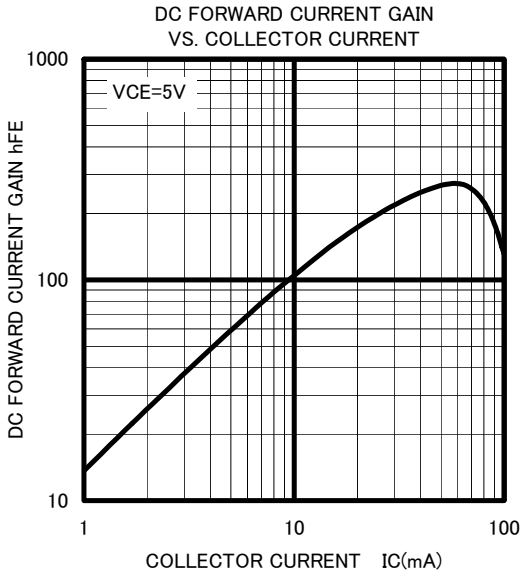


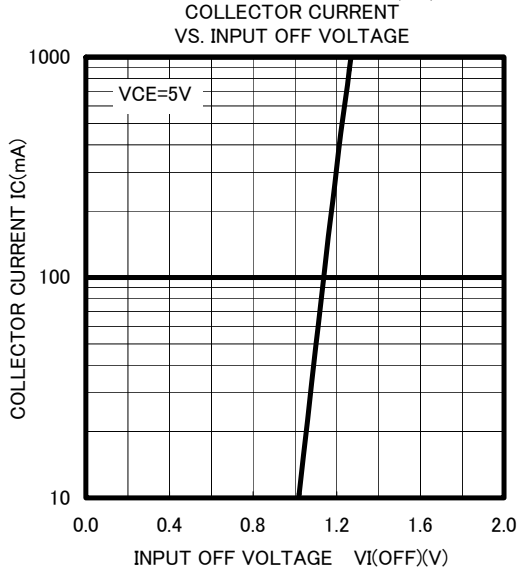
ELECTRICAL CHARACTERISTICS (Ta=25℃) (Tr1,Tr2 common)

Symbol	Parameter	Test conditions		Limits			Unit
				Min	Typ	Max	
$V_{(BR)CEO}$	Collector to Emitter break down voltage	I_C=100μA,R_{BE}=∞		50	-	-	V
I_{CBO}	Collector cut off current	V_{CB}=50V,I_E=0		-	-	0.1	μA
h_{FE}	DC forward current gain	V_{CE}=5V,I_C=5mA		50	-	-	-
$V_{CE(sat)}$	Collector to Emitter 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		-	1.2	1.8	V
$V_{I(OFF)}$	Input off voltage	V_{CE}=5V,I_C=100μA		0.4	0.7	-	V
R_1	Input resistor	-		7.0	10	13	kΩ
R_2/R_1	Resistor ratio	-		4.2	4.7	5.1	-
f_T	Gain band width product	V_{CE}=6V,I_E=-10mA	Tr1	-	200	-	MHz
			Tr2	-	150	-	

TYPICAL CHARACTERISTICS (Tr1)

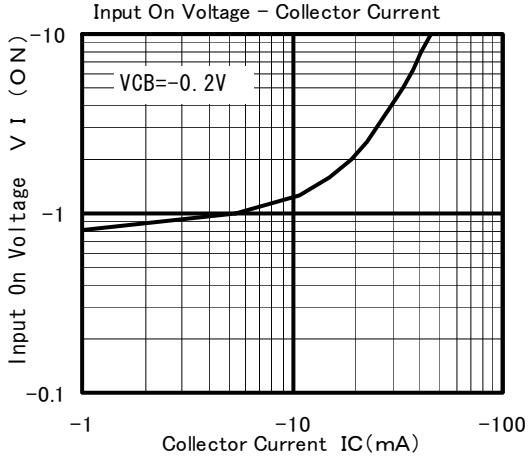




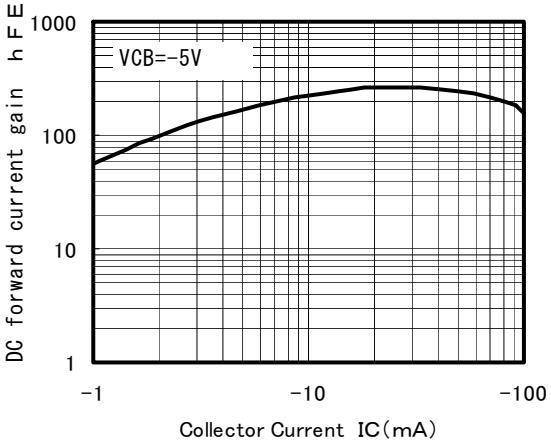


TYPICAL CHARACTERISTICS (Tr2)

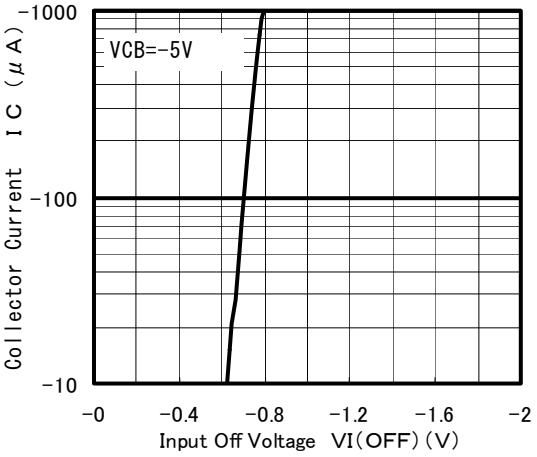
Input On Voltage – Collector Current



DC forward current gain–Collector Current



Collector Current – Input Off Voltage



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