

RT3TDDU

Composite Transistor With Resistor
For Switching Application
Silicon Epitaxial Type

DESCRIPTION

RT3TDDU is a composite transistor built with two RT1N237 chip and RT1P237 chip in SC-75A package.

FEATURE

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

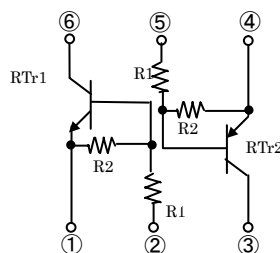
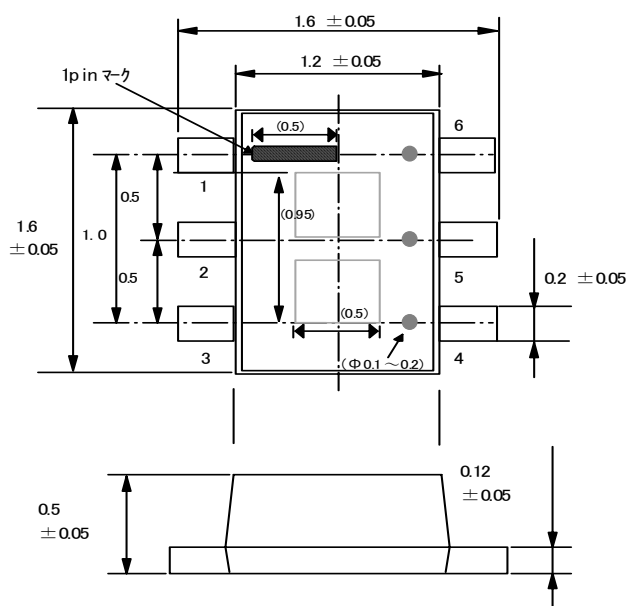
APPLICATION

Inverted circuit, switching circuit,
interface circuit, driver circuit

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

OUTLINE DRAWING

Unit: mm



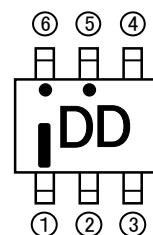
TERMINAL
CONNECTOR
①: EMITTER1
②: BASE1
③: COLLECTOR2
④: EMITTER2
⑤: BASE2
⑥: COLLECTOR1

JEITA: —
ISAHAYA: USM6F

MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING	UNIT
VCBO	Collector to Base voltage	50	V
VEBO	Emitter to Base voltage	6	V
VCEO	Collector to Emitter voltage	50	V
VIN	Input Voltage	12	V
IC	Collector current	100	mA
ICM	Peak Collector current	200	mA
PC	Collector dissipation (Total, Ta=25°C)	125	mW
Tj	Junction temperature	+150	°C
Tstg	Storage temperature	-55~+150	°C

MARKING





Marketing division, Marketing planning department

6-41 Tsukuba, Isahaya, Nagasaki, 854-0065 Japan

Keep safety first in your circuit designs!

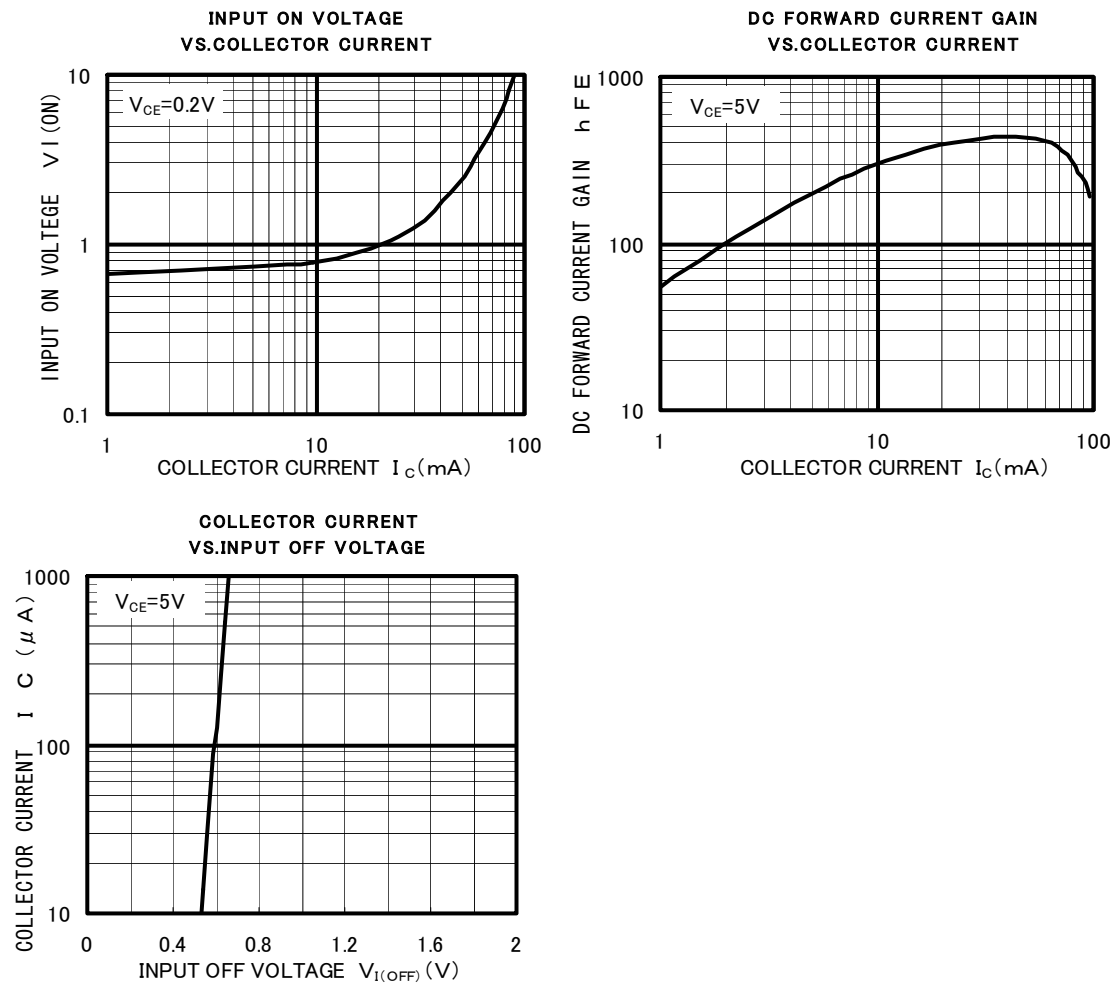
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Notes regarding these materials

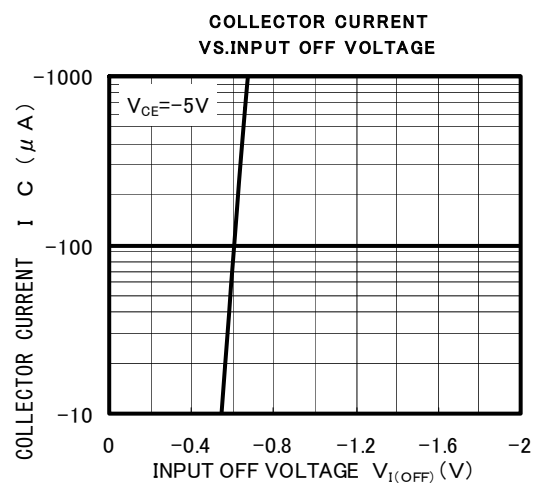
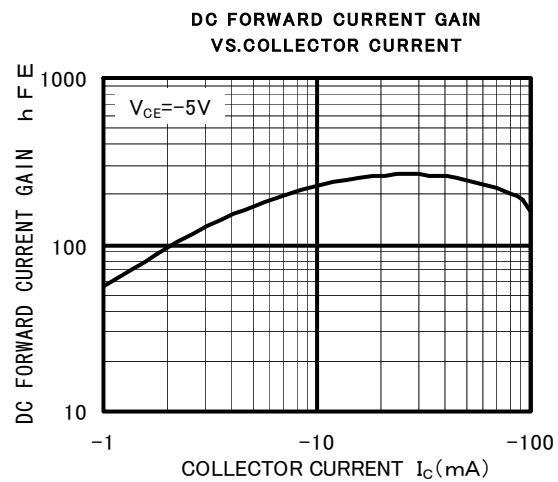
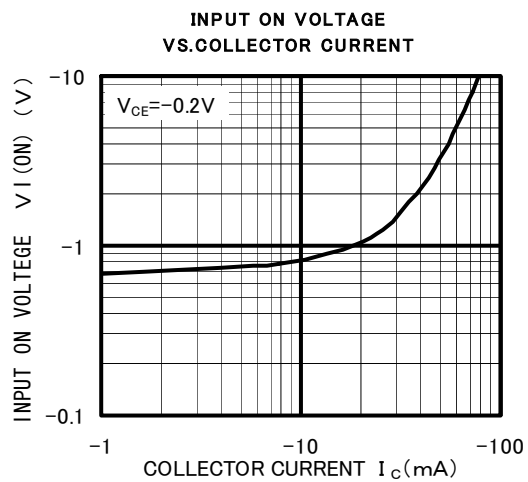
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ELECTRICAL CHARACTERISTICS (Ta=25°C) (Tr1,Tr2 common)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CEO}$	Collector to Emitter break down voltage	$I_C=100\mu A$, $R_{BE}=\infty$	50			V
I_{CBO}	Collector cut off current	$V_{CB}=50V$, $I_E=0$			0.1	μA
h_{FE}	DC forward current gain	$V_{CE}=5V$, $I_C=10mA$	80			-
$V_{CE(sat)}$	Collector to Emitter saturation voltage	$I_C=10mA$, $I_B=0.5mA$		0.1	0.3	V
$V_{I(ON)}$	Input on voltage	$V_{CE}=0.2V$, $I_C=5mA$		0.7	1.1	V
$V_{I(OFF)}$	Input off voltage	$V_{CE}=5V$, $I_C=100\mu A$	0.5	0.6		V
R_1	Input resistor		1.5	2.2	2.9	K Ω
R_2/R_1	Resistor ratio		17	22	26	-
f_T	Gain band width product	Tr1 $V_{CE}=6V$, $I_E=-10mA$		200		MHz
		Tr2 $V_{CE}=6V$, $I_E=10mA$		150		

TYPICAL CHARACTERISTICS (Tr1)

TYPICAL CHARACTERISTICS (Tr2)





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