

RT3T33M

Composite Transistor With Resistor
For Switching Application
Silicon Epitaxial Type

DESCRIPTION

RT3T33M is a composite transistor built with RT1N441 chip and RT1P441 chip in SC-88 package.

FEATURE

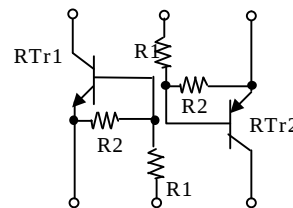
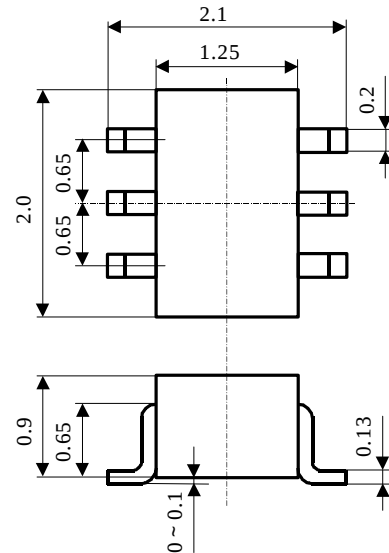
Silicon epitaxial type
Each transistor elements are independent.
Mini package for easy mounting

APPLICATION

Inverted circuit, switching circuit,
interface circuit, driver circuit

OUTLINE DRAWING

Unit: mm



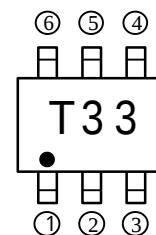
TERMINAL
CONNECTOR
: EMITTER1
: BASE1
: COLLECTOR2
: EMITTER2
: BASE2
: COLLECTOR1

JEITA : SC-88

MAXIMUM RATING (Ta=25)

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)	150	mW
T_j	Junction temperature	+ 150	
T_{stg}	Storage temperature	-55 ~ + 150	

MARKING



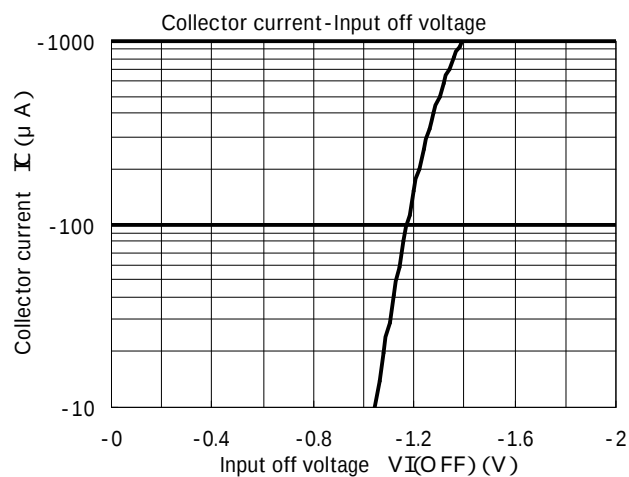
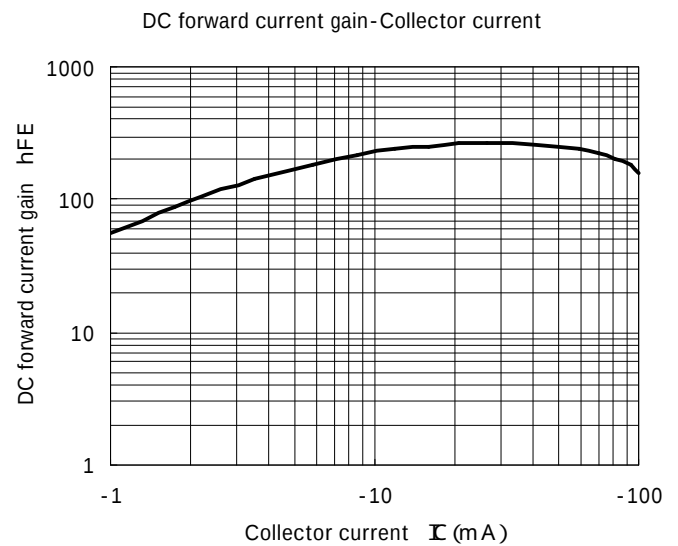
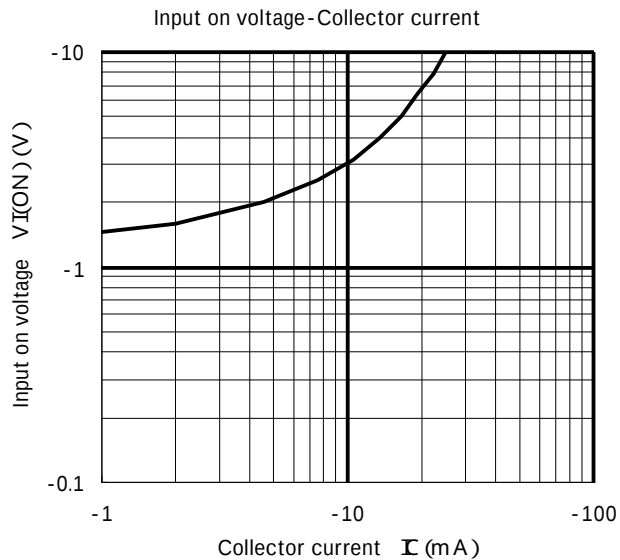
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ELECTRICAL CHARACTERISTICS (Ta=25)

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	$V_{CE}=5V, I_C=5mA$	50	-	-	-
$V_{CE(sat)}$	Collector to Emitter saturation voltage	$I_C=10mA, I_B=5mA$	-	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	$V_{CE}=5V, I_C=100\mu A$	0.8	1.1	-	V
R_1	Input resistor	-	33	47	61	k Ω
R_2/R_1	Resistor ratio	-	0.9	1.0	1.1	-
f_T	Gain band width product	$V_{CE}=6V, I_E=-10mA$	-	150	-	MHz

TYPICAL CHARACTERISTICS





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