RTE21N3M

Composite Transistor
Zener Diode
Resistor Built-in Transistor Silicon NPN Epitaxial Type

DESCRIPTION

RTE21N3M is a composite transistor built RT1N441 and Zener diode (Vz=18V) in SC-88 package.

Use of this product enables miniaturization of equipment and reduction parts and process.

FEATURE

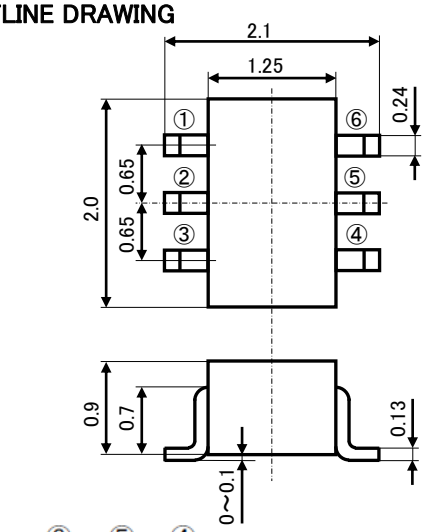
・This product is packaged in super mini PKG(6pin) and mount RT1N441(R1=47kΩ,R2=47kΩ) and Zener diode(Vz=18V).
・Enables miniaturization of equipment and high density mounting.

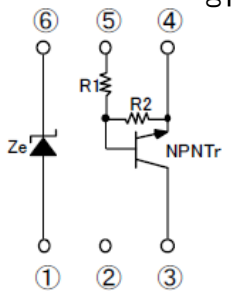
APPLICATION

Power supply circuit
Driver circuit

OUTLINE DRAWING

Unit:mm





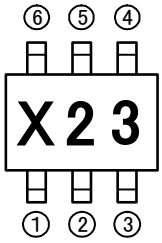
TERMINAL CONNECTOR
①: ANODE
②:NC
③:COLLECTOR
④:EMITTER
⑤:BASE
⑥:CATHODE

JEITA:SC-88
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_T	Total dissipation	150	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

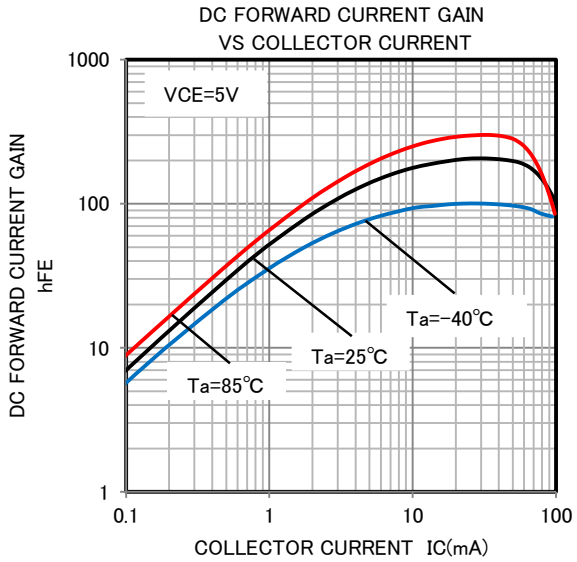
MARKING

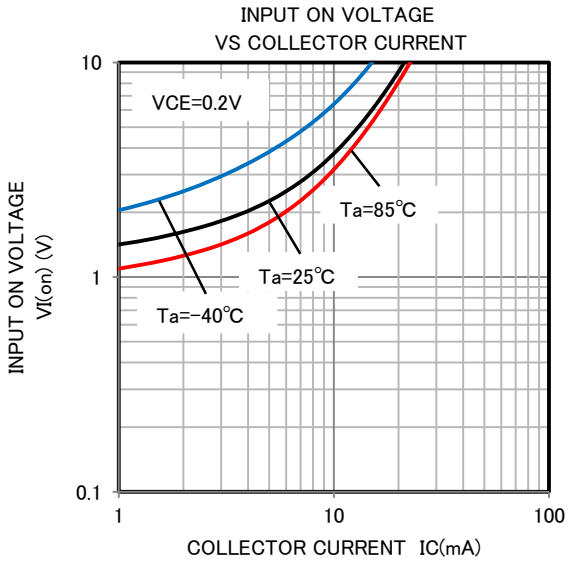


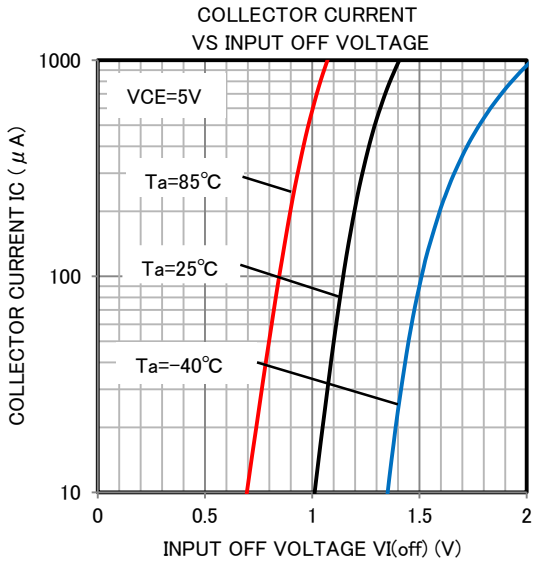
ELECTRICAL CHARACTERISTICS (Ta=25℃)

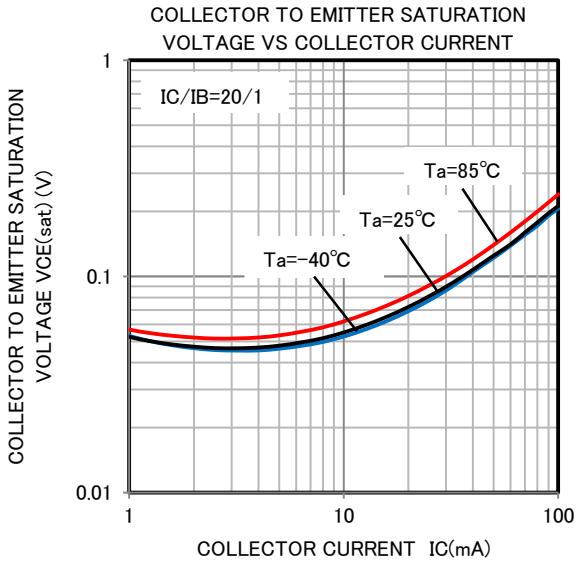
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
I_{CBO}	Collector cut off current	V_{CB}=50V, I_E=0A	−	−	0.1	μA
I_{EBO}	Emitter cut off current	V_{EB}=5V, I_C=0A	41	53	76	μA
h_{FE}	DC forward current gain	V_{CE}=5V, I_C=5mA	50	−	−	−
$V_{CE(sat)}$	Collector to Emitter saturation voltage	I_C=10mA, I_B=0.5mA	−	−	0.3	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=100uA	0.8	1.1	−	V
R_1	Input resistor	−	33	47	61	kΩ
R_2/R_1	Resistor ratio	−	0.9	1.0	1.1	−
f_T	Gain band width product	V_{CE}=6V, I_E=−10mA	−	200	−	MHz
V_Z	Zener voltage	I_Z=5mA	17.1	18	18.9	V
I_R	Reverse current	V_R=14V	−	−	1.0	μA

TYPICAL CHARACTERISTICS (Tr)

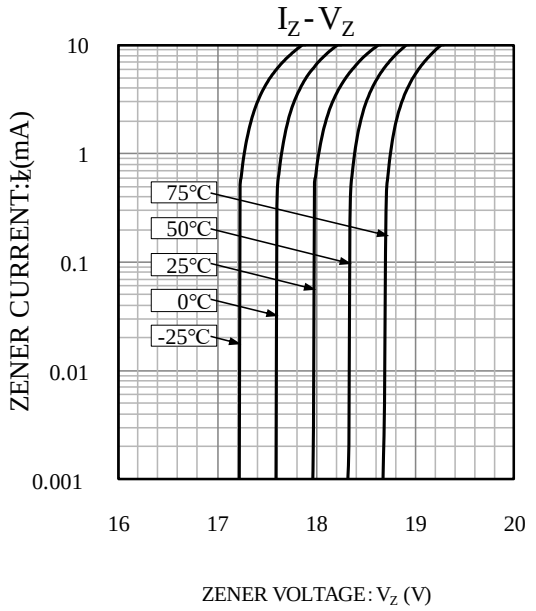


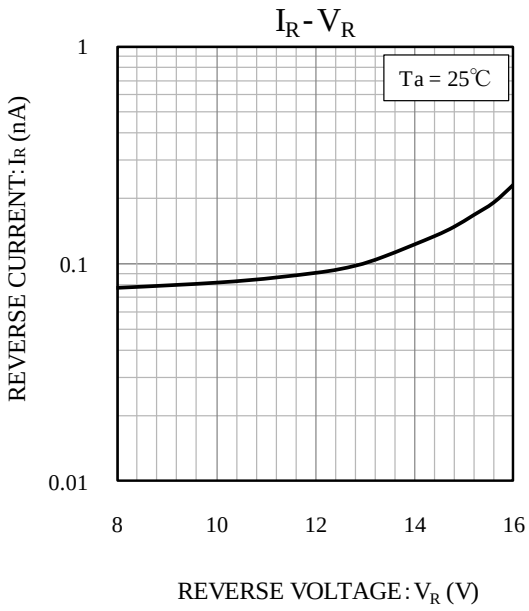


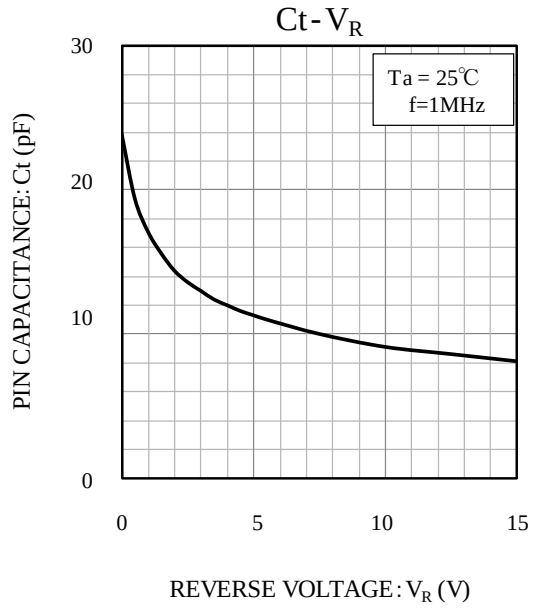




TYPICAL CHARACTERISTICS (Di)







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