

RTE21N3M

Composite Transistor
Zener Diode

Resistor Built-in Transistor Silicon NPN Epitaxial Type

DESCRIPTION

RTE21N3M is a composite transistor built RT1N441 and Zener diode ($V_Z=18V$) 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($R_1=47k\Omega$, $R_2=47k\Omega$) and Zener diode($V_Z=18V$).
- Enables miniaturization of equipment and high density mounting.

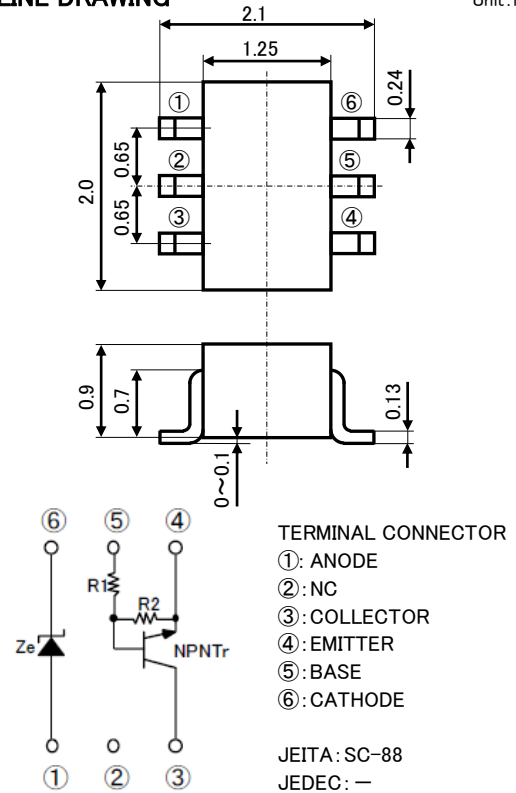
APPLICATION

Power supply circuit

Driver circuit

OUTLINE DRAWING

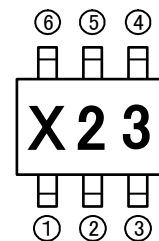
Unit: mm



MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING	UNIT
V _{CB0}	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	°C
T _{stg}	Storage temperature	-55~+150	°C

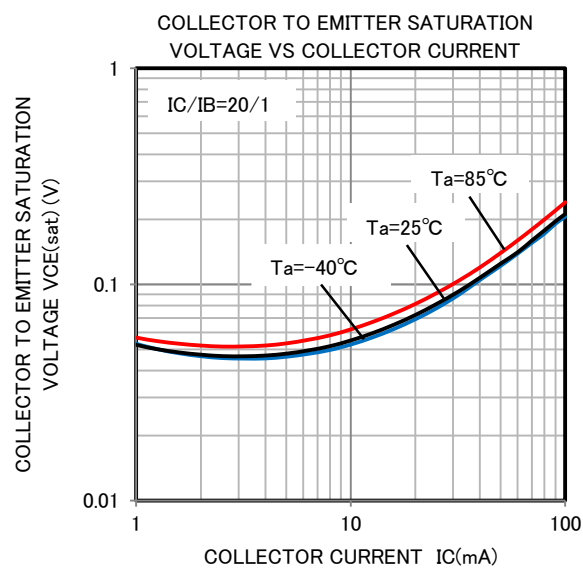
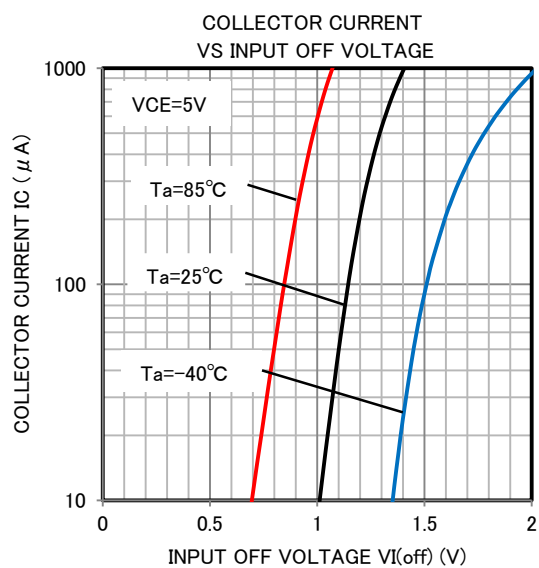
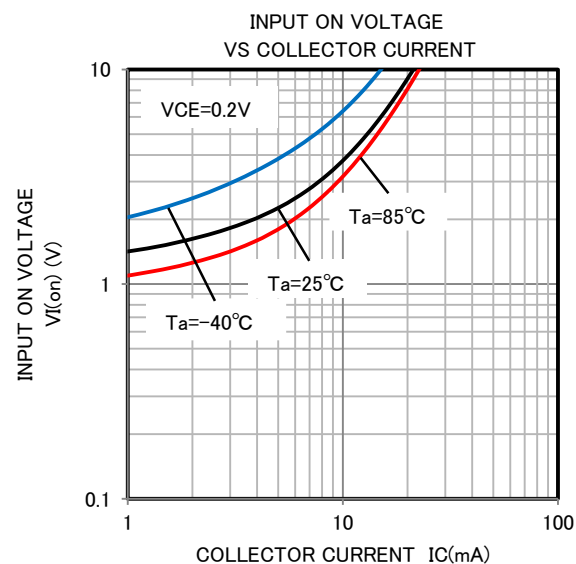
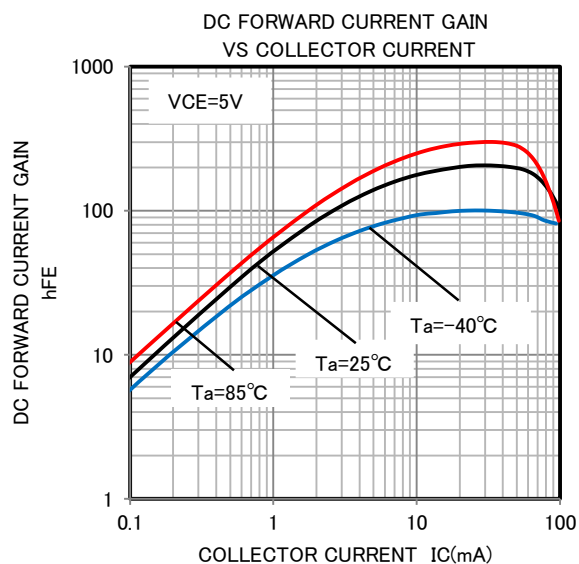
MARKING



ELECTRICAL CHARACTERISTICS (Ta=25°C)

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
I _{CB0}	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 =100μA	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)

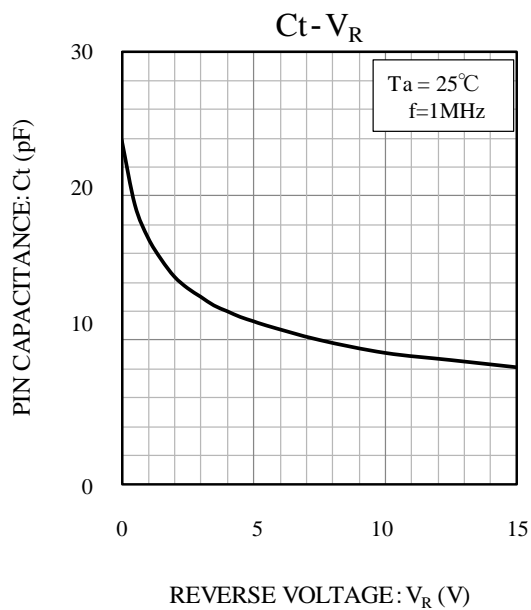
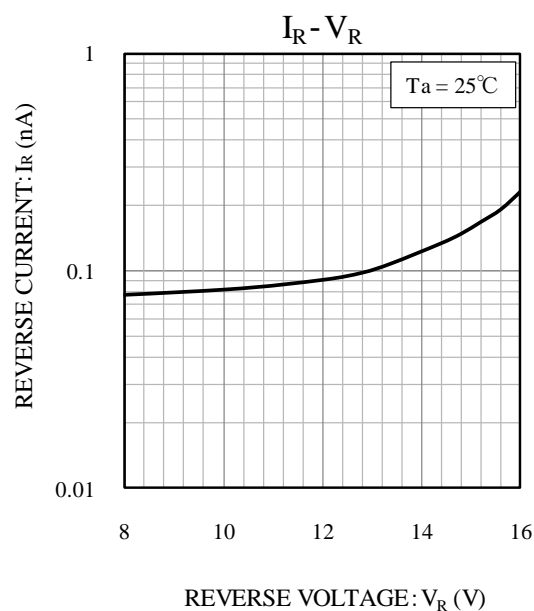
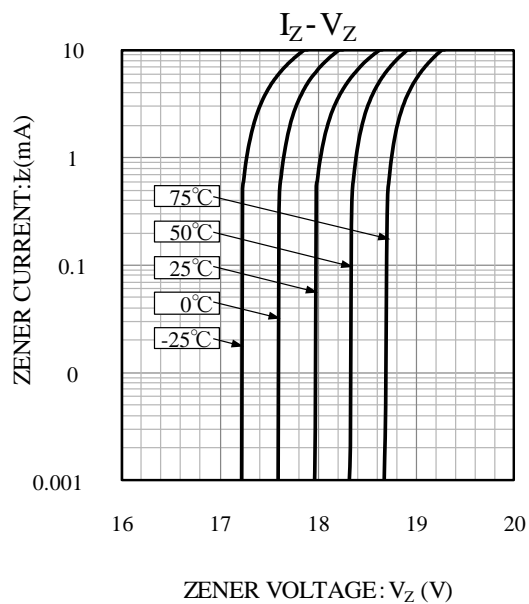


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TYPICAL CHARACTERISTICS (Di)



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