# RT1N14BM-T150

Transistor With Resistor For Switching Application Silicon NPN Epitaxial Type

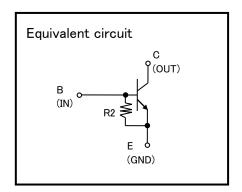
AEC-Q101 Compliance

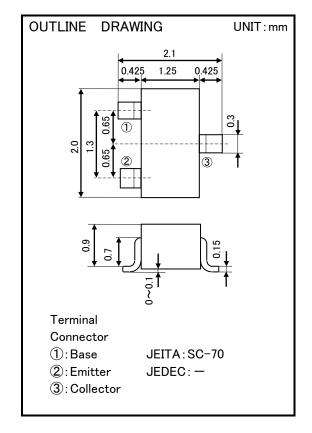
### **FEATURE**

- Built-in bias resistor (R2=10k Ω)
- •Mini package for easy mounting

### **APPLICATION**

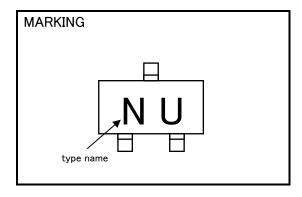
Inverted circuit, switching circuit, interface circuit, driver circuit.





## MAXIMUM RATING(Ta=25°C)

SYMBOL	PARAMETER	RATING	UNIT	
$V_{CBO}$	Collector to Base voltage	50	V	
$V_{EBO}$	Emitter to Base voltage	6	٧	
$V_{CEO}$	Collector to Emitter voltage	50	٧	
$I_{C}$	Collector current	100	mA	
$\mathbf{I}_{CM}$	Peak Collector current	200	mA	
Pc	Collector dissipation	200	mW	
$T_{j}$	Junction temperature	+150	ပ	
$T_{stg}$	Storage temperature	−55 <b>~</b> +150	°C	

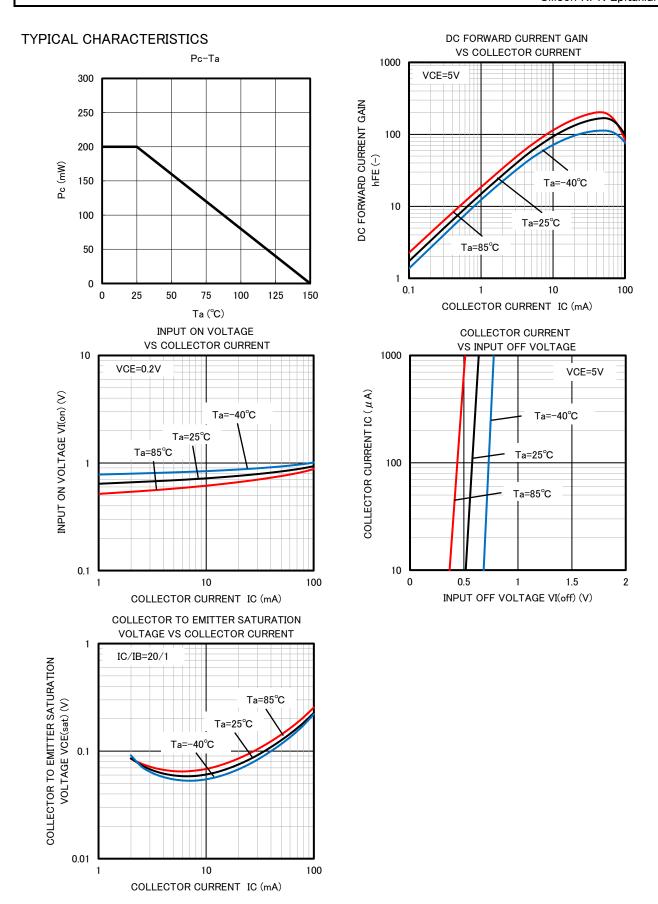


## ELECTRICAL CHARACTERISTICS (Ta=25°C)

SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
STINIDUL			MIN	TYP	MAX	UNIT
$V_{(BR)CEO}$	C to E breakdown voltage	$I_C=100 \mu A, R_{BE}=\infty$	50	l	I	V
$\mathbf{I}_{CBO}$	Collector cut off current	V <sub>CB</sub> =50V, I <sub>E</sub> =0	_	l	0.1	μΑ
$\mathbf{I}_{EBO}$	Emitter cut off current	$V_{EB}=5V$ , $I_{C}=0$	375	500	725	μΑ
$h_{FE}$	DC forward current gain	$V_{CE}=5V$ , $I_{C}=5mA$	30	l	I	1
$V_{\text{CE(sat)}}$	C to E saturation voltage	$I_C=10$ mA, $I_B=0.5$ mA	_	l	0.3	V
R2	Emitter-Base resistor	_	7	10	13	kΩ
$f_T$	Gain band width product	V <sub>CE</sub> =6V, I <sub>E</sub> =-10mA	_	200	1	MHz

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#### Keep safety first in your circuit designs!

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