

RT1N432X SERIES

Transistor

Transistor With Resistor

For Switching Application

Silicon NPN Epitaxial Type

DESCRIPTION

RT1N432X is a one chip transistor with built-in bias resistor, PNP type is RT1P432X.

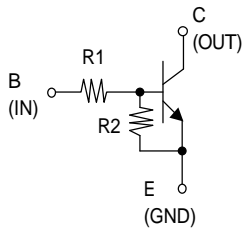
FEATURE

- Built-in bias resistor ($R1=4.7k$, $R2=10k$).

APPLICATION

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

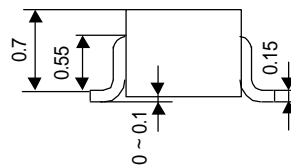
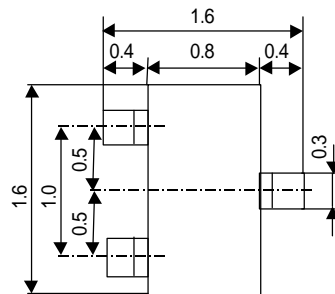
Equivalent circuit



OUTLINE DRAWING

UNIT: mm

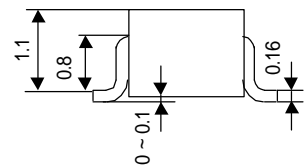
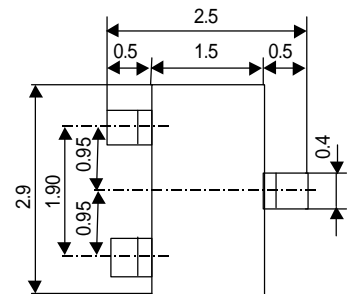
RT1N432U



JEITA: -
JEDEC: -

Terminal Connector
: Base
: Emitter
: Collector

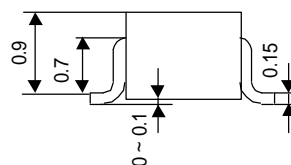
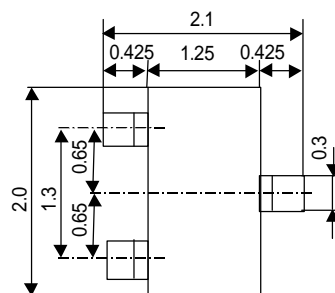
RT1N432C



JEITA: SC-59
JEDEC: Similar to TO-236

Terminal Connector
: Base
: Emitter
: Collector

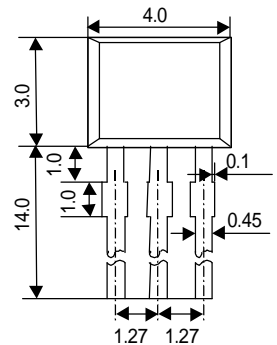
RT1N432M



JEITA: SC-70
JEDEC: -

Terminal Connector
: Base
: Emitter
: Collector

RT1N432S



JEITA: -
JEDEC: -

Terminal Connector
: Emitter
: Collector
: Base

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Transistor

Transistor With Resistor

For Switching Application

Silicon NPN Epitaxial Type

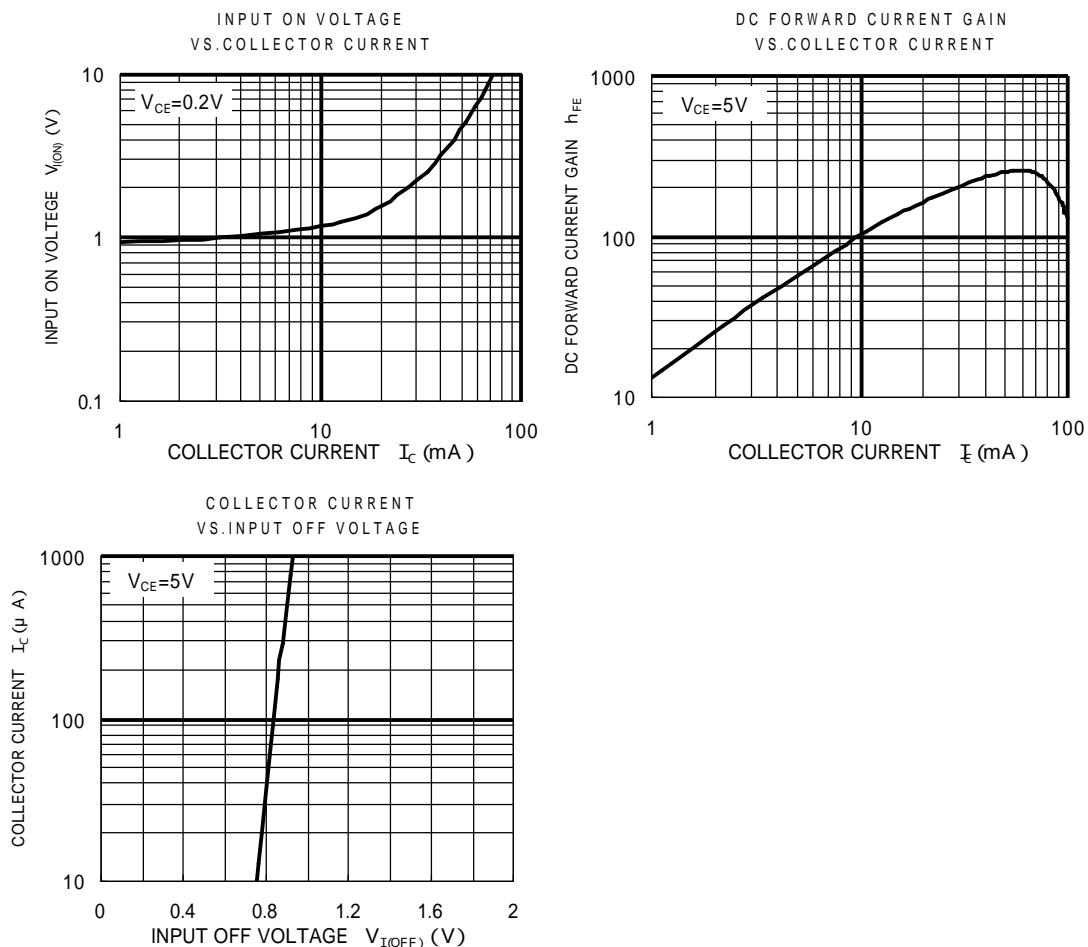
MAXIMUM RATING (Ta=25 °C)

SYMBOL	PARAMETER	RATING				UNIT
		RT1N432U	RT1N432M	RT1N432C	RT1N432S	
V _{CBO}	Collector to Base voltage	50				V
V _{EBO}	Emitter to Base voltage	7				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(Ta=25)	150	200		450	mW
T _j	Junction temperature	+150	+150			
T _{stg}	Storage temperature	-55 ~ +150	-55 ~ +150			

ELECTRICAL CHARACTERISTICS (Ta=25 °C)

SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
$V_{(BR)CEO}$	C to E break down voltage	$I_C=100\mu A, R_{BE}=$	50			V
I_{CBO}	Collector cut off current	$V_{CB}=50V, I_E=0$			0.1	μA
h_{FE}	DC forward current gain	$V_{CE}=5V, I_C=10mA$	30			-
$V_{CE(sat)}$	C to E saturation voltage	$I_C=10mA, I_B=0.5mA$		0.1	0.3	V
$V_{I(ON)}$	Input on voltage	$V_{CE}=0.2V, I_C=5mA$		1.0	1.8	V
$V_{I(OFF)}$	Input off voltage	$V_{CE}=5V, I_C=100\mu A$	0.5	0.8		V
R_1	Input resistance		3.3	4.7	6.1	k
R_2 / R_1	Resistance ratio		1.7	2.1	2.6	
f_T	Gain band width product	$V_{CE}=6V, I_E=-10mA$		200		MHz

TYPICAL CHARACTERISTICS





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