RT2N12M

COMPOSITE TRANSISTOR WITH RESISTOR FOR SWITCHING APPLICATION SILICON NPN EPITAXIAL TYPE

DESCRIPTION

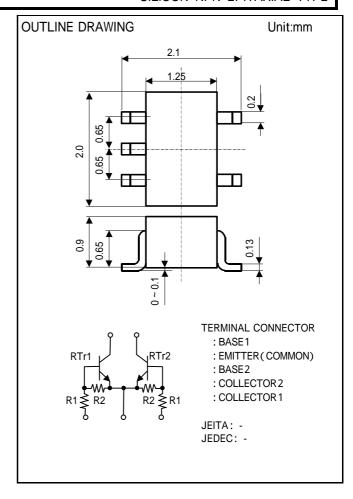
RT2N12M is a composite transistor with built-in bias resistor

FEATURE

Built-in bias resistor (R1=4.7~K , R2=47K) Mini package for easy mounting

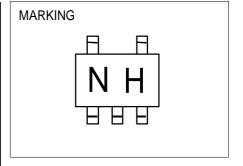
APPLICATION

Inverted circuit , switching circuit , interface circuit , driver circuit



MAXIMUM RATINGS (Ta=25)(RTr1, RTr2)

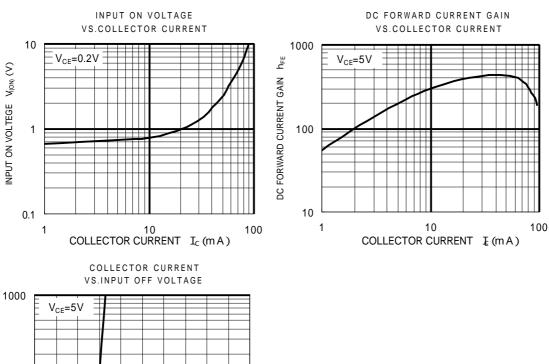
Symbol	Parameter	Ratings	Unit
V _{CBO}	Collector to Base voltage	50	V
V_{EBO}	Emitter to Base voltage	6	٧
V_{CEO}	Collector to Emitter voltage	50	V
I _c	Collector current	100	mA
I _{CM}	Peak Collector current	200	mA
Pc	Collector dissipation(Total Ta=25)	150	mW
T _j	Junction temperature	+ 150	
T_{stg}	Storage temperature	-55 ~ + 150	

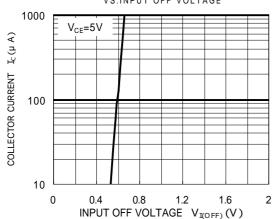


ELECTRICAL CHARACTERISTICS (Ta=25)(RTr1, RTr2)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Тур	Max	Onit
V _{(BR)CEO}	Collector to Emitter break down voltage	$I_{C}=100 \mu A$, $R_{BE}=$	50	-	-	V
I _{CBO}	Collector cut off current	V_{CB} =50V , I $_{E}$ =0mA	-	-	0.1	μА
h _{FE}	DC forward current gain	V_{CE} =5V , I $_{C}$ =10mA	80	-	-	-
V _{CE(sat)}	Collector to Emitter 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	-	0.8	1.4	V
$V_{I(OFF)}$	Input off voltage	V_{CE} =5V , I $_{C}$ =100 μ A	0.5	0.7	-	V
R ₁	Input resistor		3.3	4.7	6.1	K
R ₂ /R ₁	Resistor ratio		8	10	12	-
f _T	Gain band width product	V _{CE} =6V , I _E =-10mA	-	200	-	MHz

TYPICAL CHARACTRISTICS (Tr1, Tr2)







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