RT2N09M

COMPOSITE TRANSISTOR WITH RESISTOR FOR SWITCHING APPLICATION SILICON NPN EPITAXIAL TYPE

DESCRIPTION

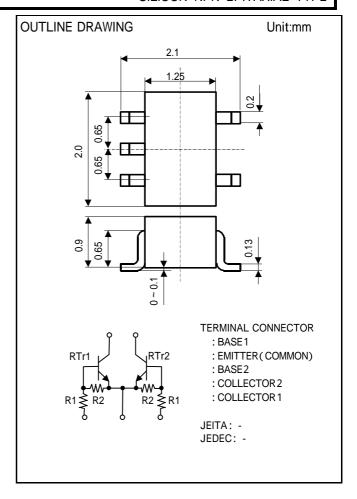
RT2N09M is a composite transistor with built-in bias resistor

FEATURE

Built-in bias resistor (R1=2.2~K , R2=47K) Mini package for easy mounting

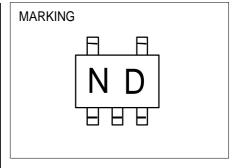
APPLICATION

Inverted circuit , switching circuit , interface circuit , driver circuit



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

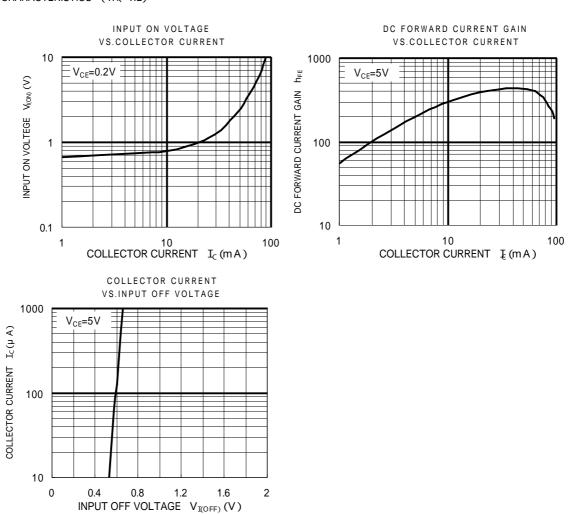
Symbol	Parameter	Ratings	Unit
V _{CBO}	Collector to Base voltage	50	V
V_{EBO}	Emitter to Base voltage	6	٧
V_{CEO}	Collector to Emitter voltage	50	٧
I _c	Collector current	100	mA
I _{CM}	Peak Collector current	200	mA
Pc	Collector dissipation(Total Ta=25)	150	mW
T _j	Junction temperature	+ 150	
T_{stg}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



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

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Тур	Max	Unit
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	μΑ
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	-	0.7	1.1	V
$V_{I(OFF)}$	Input off voltage	V_{CE} =5V , I $_{C}$ =100 μ A	0.5	0.6	-	V
R ₁	Input resistor		1.5	2.2	2.9	K
R ₂ /R ₁	Resistor ratio			22		-
f _T	Gain band width product	V _{CE} =6V , I _E =-10mA	-	200	-	MHz

TYPICAL CHARACTERISTICS (Tr1, Tr2)





Marketing division, Marketing planning department 6-41 Tsukuba, Isahaya, Nagasaki, 854-0065 Japan

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