

RT3YA7M

Composite Transistor
For Muting Application

DESCRIPTION

RT3YA7M is a composite transistor built with RT1P140 and two muting transistor with resistor in SC-88 package.

FEATURE

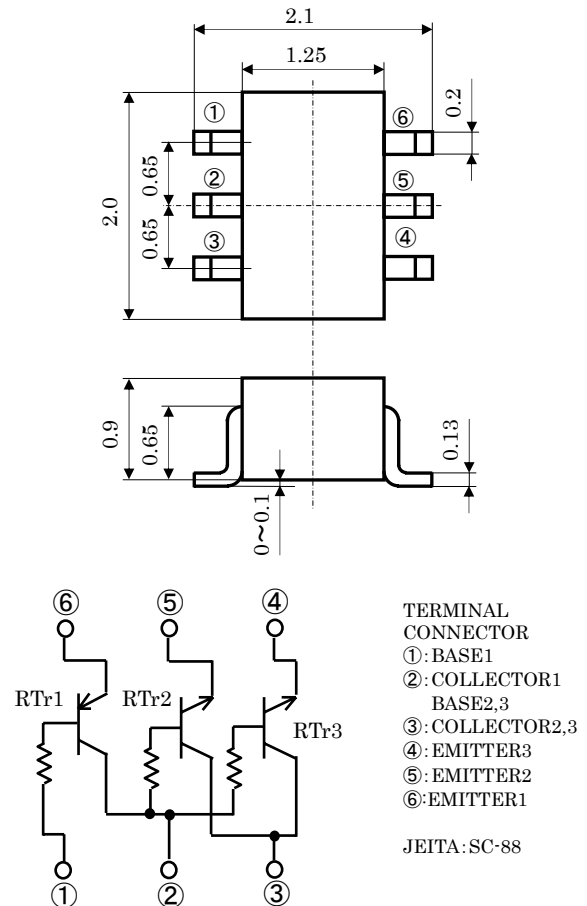
- RT3YA7M is built in RTr1 side RT1P140, and RTr2, RTr3 side composite muting transistor with resistor.
- Built-in bias resistor RTr1:R1=10k Ω RTr2, RTr3:R1=4.7k Ω
- Mini package for easy mounting

APPLICATION

muting circuit, switching circuit

OUTLINE DRAWING

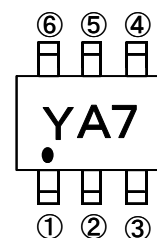
Unit: mm



MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RTr1 RATING	RTr2, RTr3 RATING	UNIT
VCBO	Collector to Base voltage	-9	40	V
VEBO	Emitter to Base voltage	-50	40	V
VCEO	Collector to Emitter voltage	-9	15	V
IC	Collector current	-100	200	mA
PC(Total)	Collector dissipation (Ta=25°C)	150		mW
Tj	Junction temperature	+150		°C
Tstg	Storage temperature	-55~+150		°C

MARKING



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Electrical characteristics (Ta=25°C) (RTr1side)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V _{CBO}	Collector-base breakdown voltage	I _C =-50 μA, I _E =0mA	-9			V
V _{EBO}	Emitter-base breakdown voltage	I _E =-50 μA, I _C =0mA	-50			V
V _{CEO}	Collector-emitter breakdown voltage	I _C =-1mA, R _{BE} =∞	-9			V
I _{CBO}	Collector cutoff current	V _{CB} =-6V, I _E =0mA			-0.1	μA
I _{EBO}	Emitter cutoff current	V _{EB} =-50V, I _C =0mA			-0.1	μA
h _{FE}	DC current transfer ratio	V _{CE} =-5V, I _C =-1mA		10		-
R _I	Input resistance	-		10		KΩ

Electrical characteristics (Ta=25°C) (RTr2,RTr3 common)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V _{CBO}	Collector-base breakdown voltage	I _C =50 μA, I _E =0mA	40			V
V _{EBO}	Emitter-base breakdown voltage	I _E =50 μA, I _C =0mA	40			V
V _{CEO}	Collector-emitter breakdown voltage	I _C =1mA, R _{BE} =∞	15			V
I _{CBO}	Collector cutoff current	V _{CB} =40V, I _E =0mA			0.5	μA
I _{EBO}	Emitter cutoff current	V _{EB} =40V, I _C =0mA			0.5	μA
h _{FE}	DC current transfer ratio	V _{CE} =5V, I _C =10mA	820		2500	-
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =50mA, I _E =5mA			100	mV
R _I	Input resistance	-		4.7		KΩ
f _T	Transition frequency	V _{CE} =6V, I _E =-10mA		58		MHz
R _{on}	Output On-resistance	V _{IN} =3V, f=1MHz		1.8		Ω



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