# RT3YB7M

Composite Transistor For Muting Application

# DESCRIPTION

RT3YB7M is a composite transistor built with RT1P140 and two muting transistor with resistor in SC-88 package.

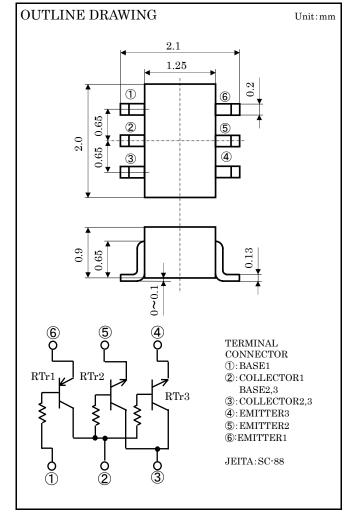
# FEATURE

•RT3YB7M is built in RTr1 side RT1P140,and RTr2,RTr3 side composite muting transistor with resistor.

- •Built-in bias resistor  $RTr1:R1=10k\Omega$   $RTr2,RTr3:R1=10k\Omega$
- •Mini package for easy mounting

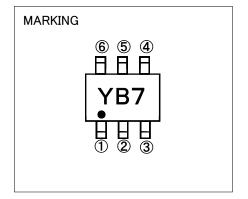
## APPLICATION

muting circuit, switching circuit



# 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= $25$ )	150		mW	
Tj	Junction temperature	+150		°C	
$T_{\mathrm{stg}}$	Storage temperature	-55~+150		°C	



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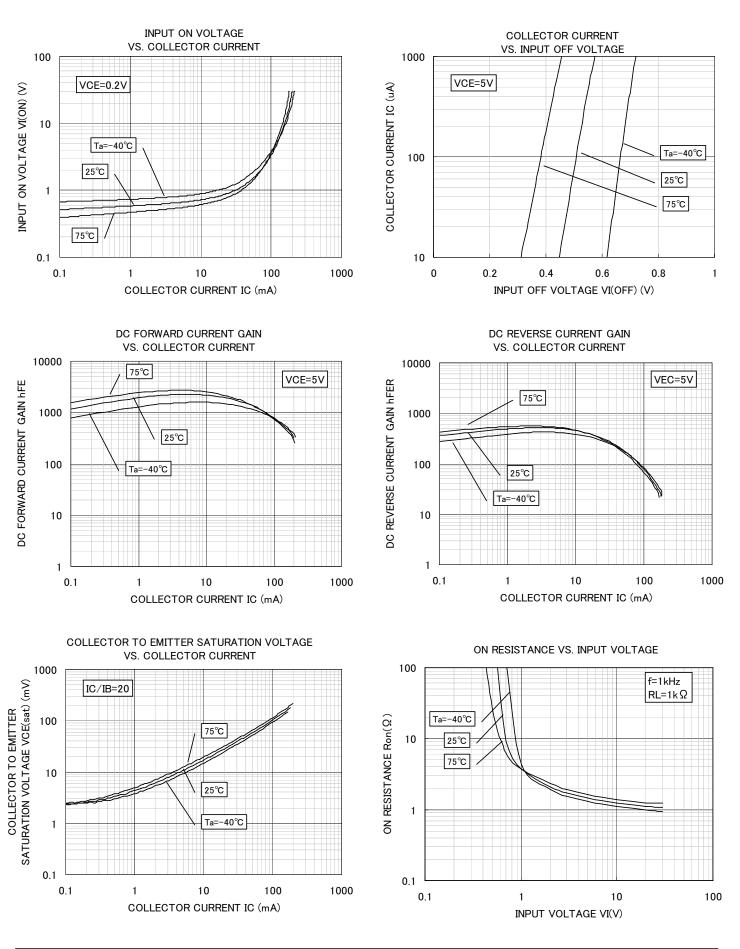
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Electrical characteristics (Ta=25°C)(RTr1side)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Тур	Max	Unit
V <sub>CBO</sub>	Collector-base breakdown voltage	Ic=-50 μ A , Iε=0mA	-9			V
Vebo	Emitter-base breakdown voltage	I <sub>E</sub> =-50 μ A , I <sub>C</sub> =0mA	-50			V
VCEO	Collector-emitter breakdown voltage	Ic=−1mA , R <sub>BE</sub> =∞	-9			V
Ісво	Collector cutoff current	V <sub>CB</sub> =-6V , I <sub>E</sub> =0mA			-0.1	μA
Іево	Emitter cutoff current	$V_{EB}$ =-50V , I c=0mA			-0.1	μA
hfe	DC current transfer ratio	V <sub>CE</sub> =-5V , I <sub>C</sub> =-1mA		10		-
R1	Input resistance	-		10		KΩ

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

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Тур	Max	Unit
V <sub>CBO</sub>	Collector-base breakdown voltage	Ic=50 μ A , Iε=0mA	40			V
Vebo	Emitter-base breakdown voltage	Iε=50 μ A , Ic=0mA	40			V
VCEO	Collector-emitter breakdown voltage	Ic=1mA , R <sub>BE</sub> =∞	15			V
Ісво	Collector cutoff current	Vcb=40V , Ie=0mA			0.5	μA
Iево	Emitter cutoff current	V <sub>EB</sub> =40V , Ic=0mA			0.5	μA
hfe	DC current transfer ratio	Vce=5V , Ic=10mA	820		2500	-
VCE(sat)	Collector-emitter saturation voltage	Ic=50mA , Iв=5mA			100	mV
R1	Input resistance	-		10		KΩ
fT	Transition frequency	Vce=6V , Ie=-10mA		55		MHz
Ron	Output On-resistance	Vıℕ=3V, f=1MHz		2.0		Ω



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