

RTAN140X SERIES

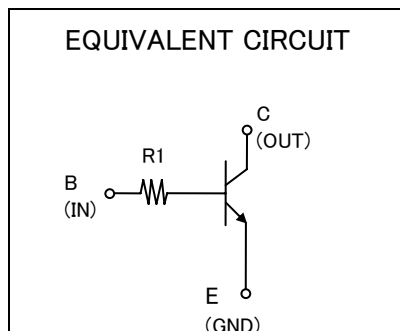
TRANSISTOR WITH RESISTOR
FOR MUTING APPLICATION
SILICON NPN EPITAXIAL TYPE

FEATURE

- Built-in bias resistor ($R_1=10k\Omega$)
- Small package for easy mounting.
- High reverse hFE
- Small collector to emitter saturation voltage.
 $V_{CE(sat)}=10mV(TYP.) (@I_C=10mA/I_B=0.5mA)$
- Low on Resistance
 $R_{on}=0.94\Omega (TYP.) (@V_I=7V)$

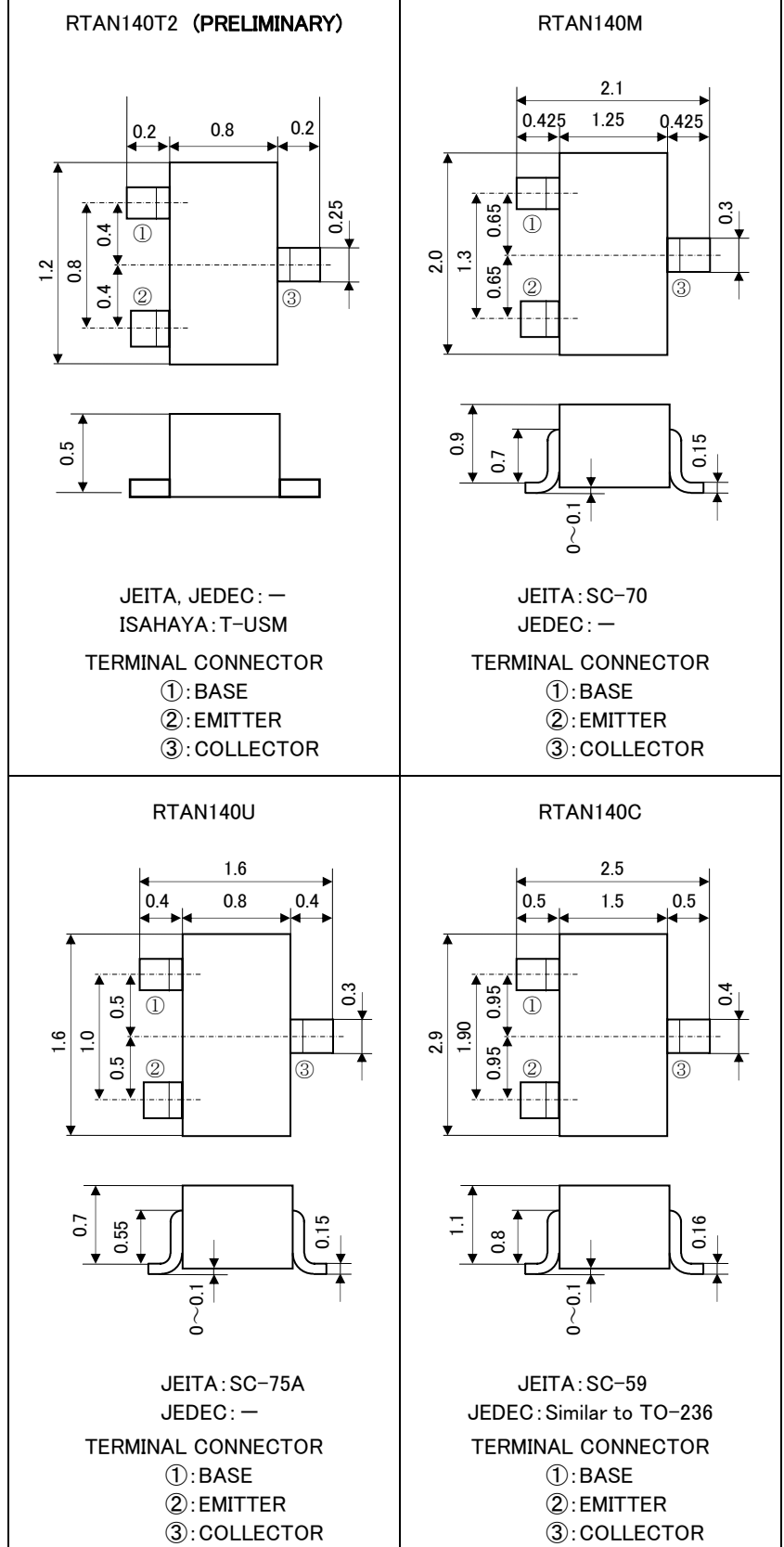
APPLICATION

muting circuit , switching circuit



OUTLINE DRAWING

Unit : mm



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SILICON NPN EPITAXIAL TYPE

MAXIMUM RATING (Ta=25°C)

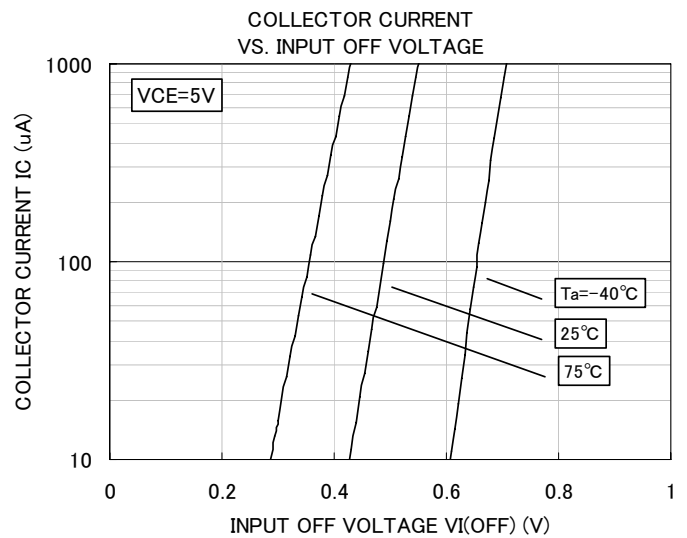
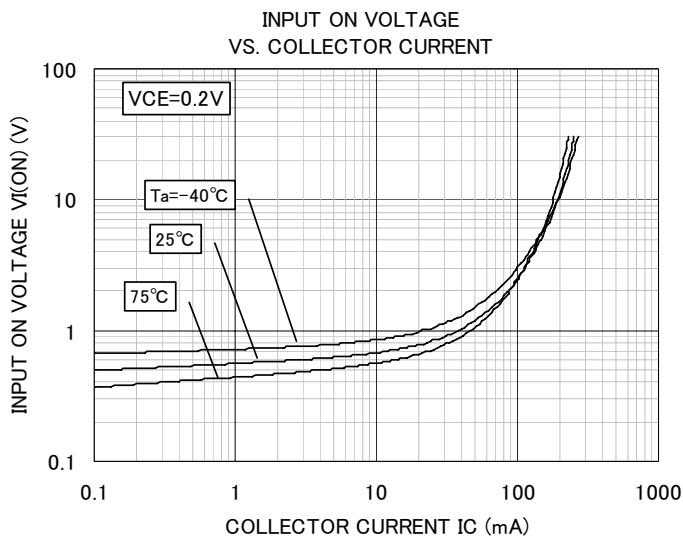
SYMBOL	PARAMETER	RATING				UNIT
		RTAN140T2	RTAN140U	RTAN140M	RTAN140C	
V _{CBO}	Collector to Base voltage	40				V
V _{EBO}	Emitter to Base voltage	40				V
V _{CEO}	Collector to Emitter voltage	20				V
I _C	Collector current	400				mA
P _C	Collector dissipation(Ta=25℃)	125(※)	150	200		mW
Tj	Junction temperature	+125	+150			℃
Tstg	Storage temperature	-55~+125	-55~+150			℃

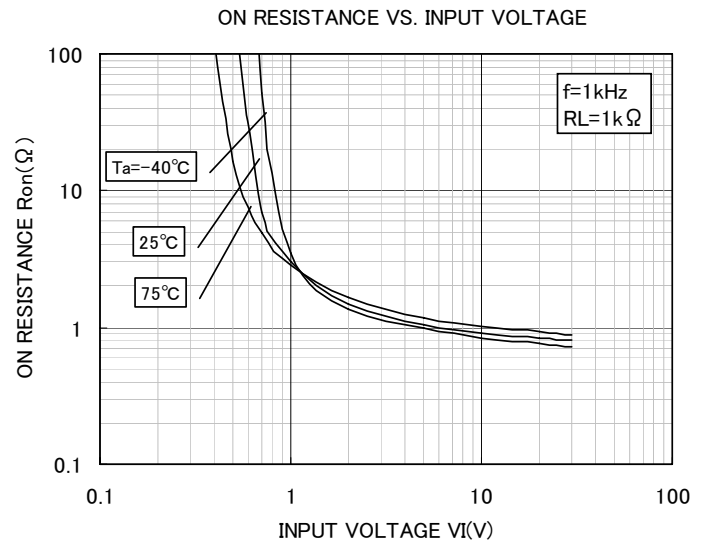
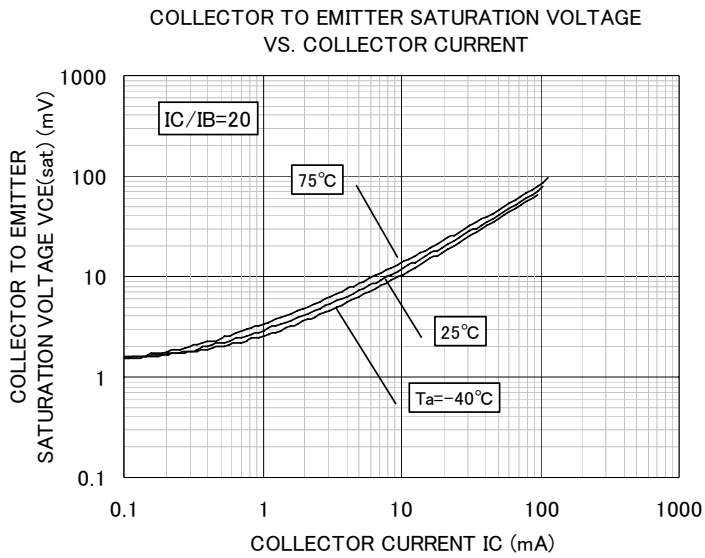
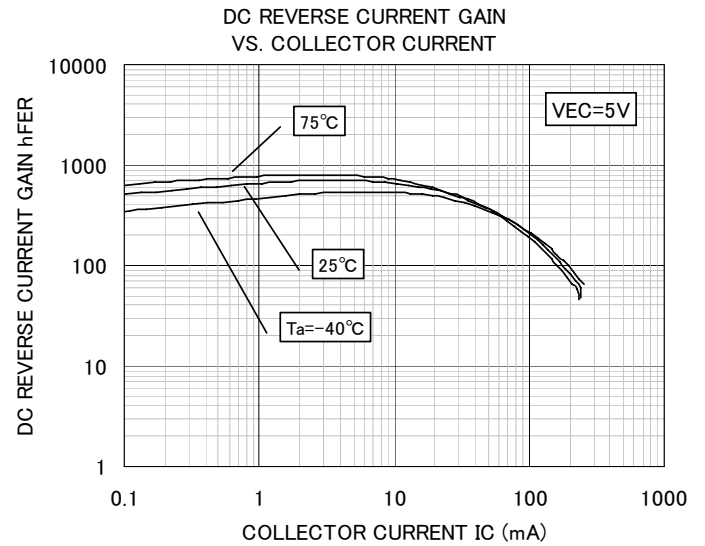
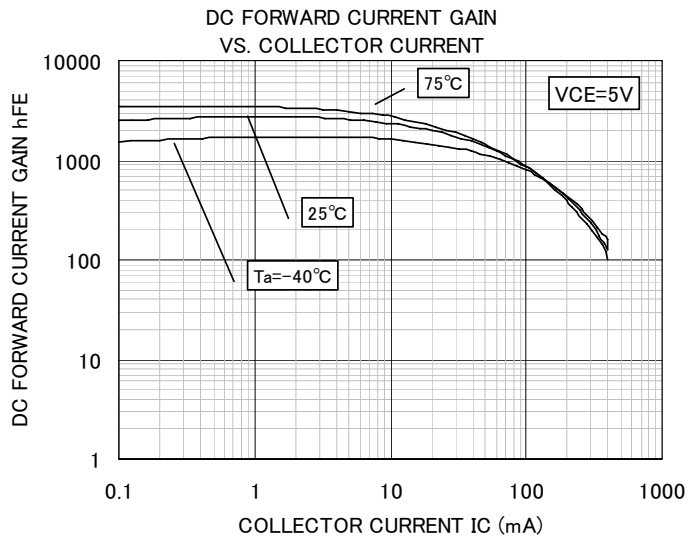
ELECTRICAL CHARACTERISTICS (Ta=25°C)

※package mounted on 9mm×19mm×1mm glass-epoxy substrate.

SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B break down voltage	$I_C=50\mu A, I_E=0mA$	40			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=50\mu A, I_C=0mA$	40			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C=1mA, R_{BE}=\infty$	20			V
I_{CBO}	Collector cut off current	$V_{CB}=40V, I_E=0mA$			0.5	μA
I_{EBO}	Emitter cut off current	$V_{EB}=40V, I_C=0mA$			0.5	μA
h_{FE}	DC forward current gain	$V_{CE}=5V, I_C=10mA$	820		2500	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C=10mA, I_B=0.5mA$		10		mV
R_1	Input resistance		7	10	13	k Ω
f_T	Gain band width product	$V_{CE}=10V, I_E=-10mA, f=100MHz$		35		MHz
R_{ON}	Output "ON" resistance	$V_I=7V, R_L=1k\Omega$		0.94		Ω

TYPICAL CHARACTERISTICS







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