

RTAN140X SERIES

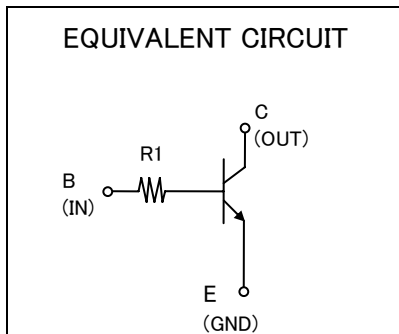
TRANSISTOR WITH RESISTOR
 FOR MUTING APPLICATION
 SILICON NPN EPITAXIAL TYPE

FEATURE

- Built-in bias resistor ($R1=10k\Omega$)
- 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

RTAN140T2 (PRELIMINARY)	RTAN140M
<p>JEITA, JEDEC : — ISAHAYA : T-USM</p> <p>TERMINAL CONNECTOR ① : BASE ② : EMITTER ③ : COLLECTOR</p>	<p>JEITA : SC-70 JEDEC : —</p> <p>TERMINAL CONNECTOR ① : BASE ② : EMITTER ③ : COLLECTOR</p>
<p>JEITA : SC-75A JEDEC : —</p> <p>TERMINAL CONNECTOR ① : BASE ② : EMITTER ③ : COLLECTOR</p>	<p>JEITA : SC-59 JEDEC : Similar to TO-236</p> <p>TERMINAL CONNECTOR ① : BASE ② : EMITTER ③ : COLLECTOR</p>

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TRANSISTOR WITH RESISTOR
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SILICON NPN EPITAXIAL TYPE

MAXIMUM RATING (Ta=25°C)

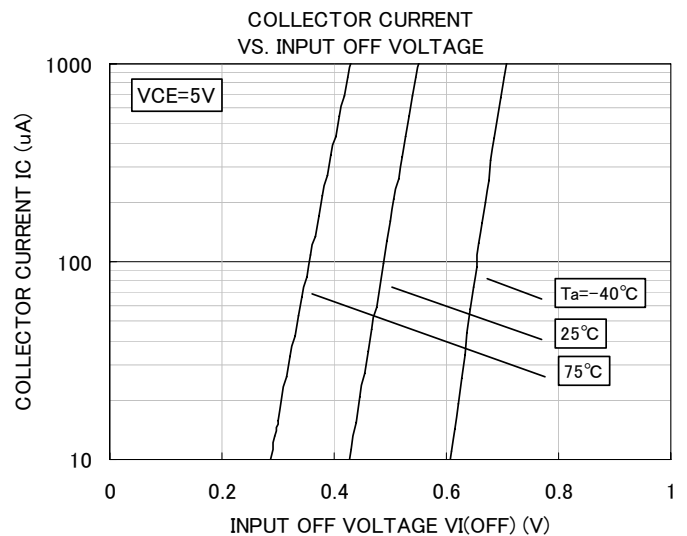
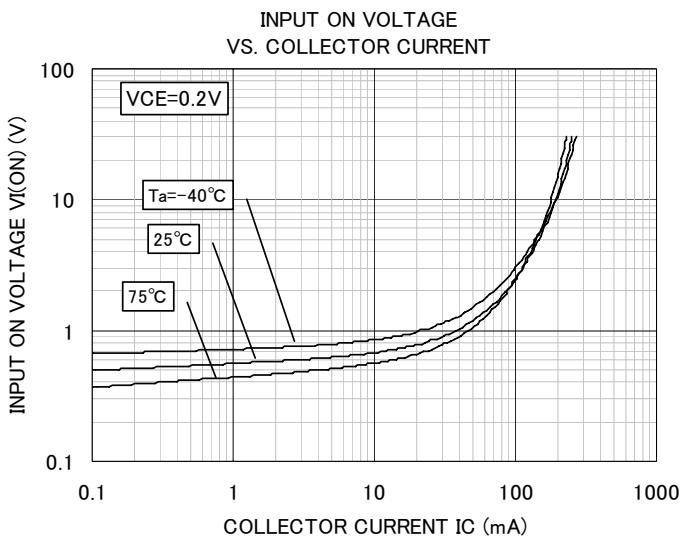
SYMBOL	PARAMETER	RATING				UNIT
		RTAN140T2	RTAN140U	RTAN140M	RTAN140C	
V _{CBO}	Collector to Base voltage	40				V
V _{EBO}	Emitter to Base voltage	40				V
V _{CEO}	Collector to Emitter voltage	20				V
I _C	Collector current	400				mA
P _C	Collector dissipation (Ta=25°C)	125(※)	150	200		mW
T _j	Junction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

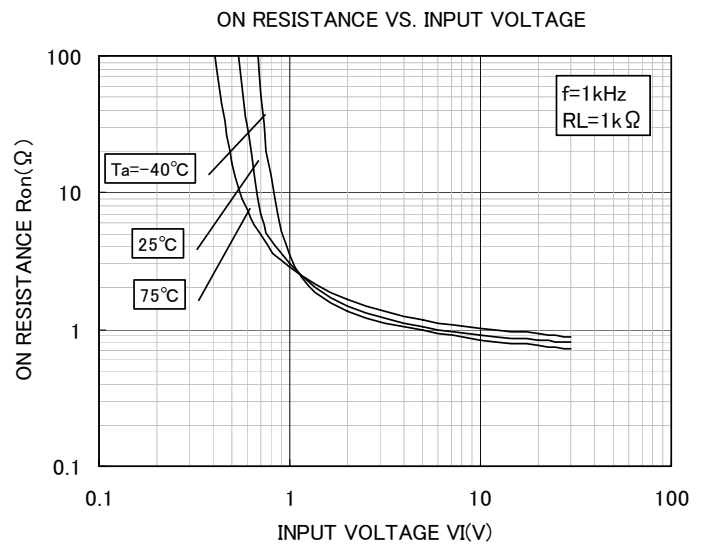
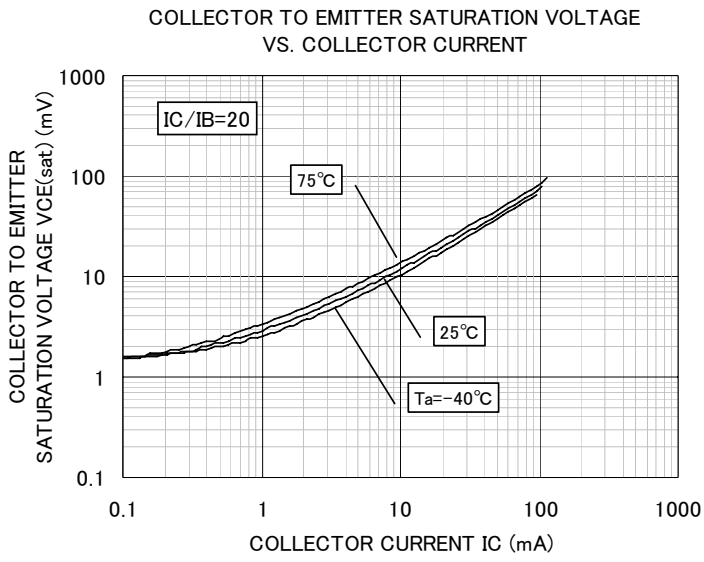
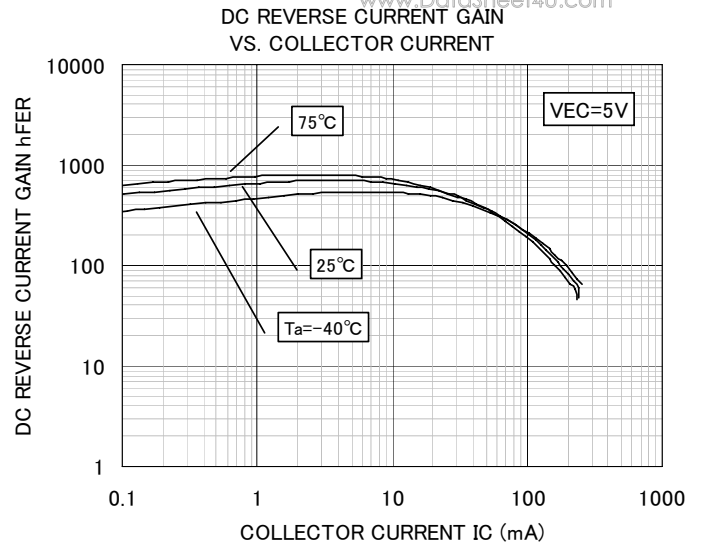
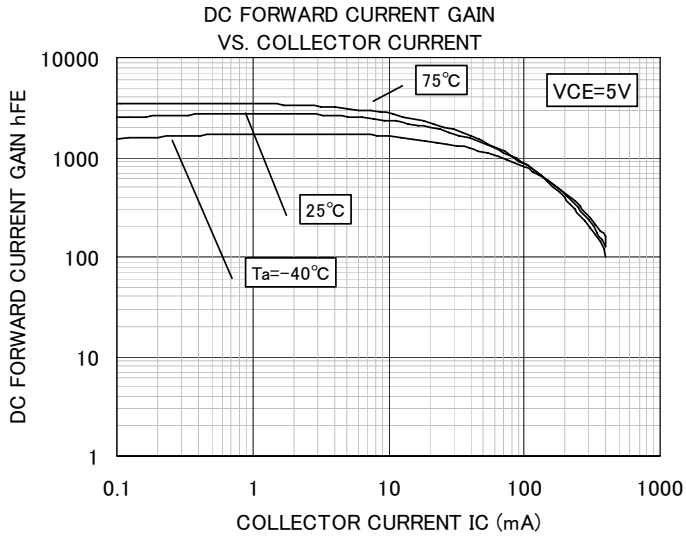
ELECTRICAL CHARACTERISTICS (Ta=25°C)

※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 μA, I _E =0mA	40			V
V _{(BR)EBO}	E to B break down voltage	I _E =50 μA, I _C =0mA	40			V
V _{(BR)CEO}	C to E break down voltage	I _C =1mA, R _{BE} =∞	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	kΩ
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 =1kΩ		0.94		Ω

TYPICAL CHARACTERISTICS







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