RTAN230X SERIES

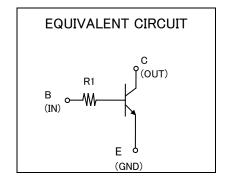
TRANSISTOR WITH RESISTOR FOR MUTING APPLICATION SILICON NPN EPITAXIAL TYPE

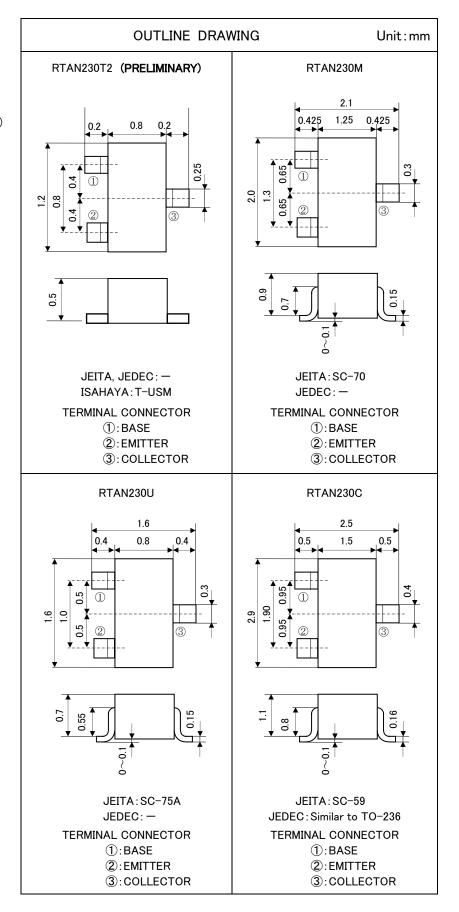
FEATURE

- •Built-in bias resistor(R1=2.2k Ω)
- •Small package for easy mounting.
- ·High reverse hFE
- Small collector to emitter saturation voltage.
 VCE(sat)=10mV(TYP.)(@IC=10mA/IB=0.5mA)
- -Low on Resistance Ron=0.70 Ω(TYP.)(@VI=5V)

APPLICATION

muting circuit, switching circuit





RTAN230X SERIES

TRANSISTOR WITH RESISTOR FOR MUTING APPLICATION SILICON NPN EPITAXIAL TYPE

MAXIMUM RATING(Ta=25°C)

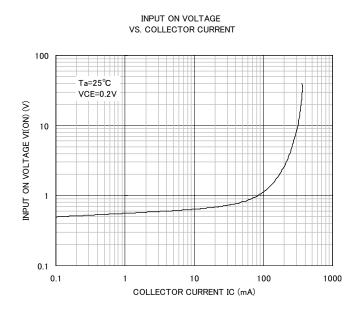
SYMBOL	PARAMETER	RATING				
		RTAN230T2	RTAN230U	RTAN230M	RTAN230C	UNIT
V_{CBO}	Collector to Base voltage	40				
V_{EBO}	Emitter to Base voltage	40				
V_{CEO}	Collector to Emitter voltage	20				
Ιc	Collector current	400				
P _c	Collector dissipation(Ta=25°C)	125(※)	150	200		mW
Tj	Junction temperature	+125	+150			°C
Tstg	Storage temperature	−55 ~ +125	−55 ~ +150			°C

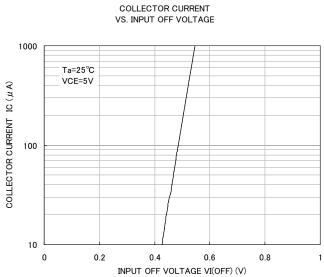
ELECTRICAL CHARACTERISTICS (Ta=25°C)

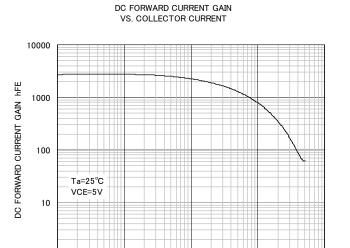
※package mounted on 9mm × 19mm × 1mm glass-epoxy substrate.

Apachage modified of offilm violation glass openy substitute.										
SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT				
		TEST CONDITION	MIN	TYP	MAX	OINI				
$V_{(BR)CBO}$	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			٧				
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	μΑ				
I _{EBO}	Emitter cut off current	V_{EB} =40V, I $_{C}$ =0mA			0.5	μΑ				
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		1.54	2.2	2.86	kΩ				
f _T	Gain band width product	V _{CE} =10V, I _E =-10mA, f=100MHz		40		MHz				
R _{on}	Output "ON" resistance	V_i =5V, R_L =1k Ω		0.70		Ω				

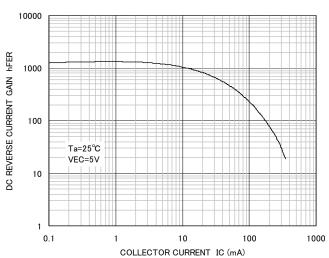
TYPICAL CHARACTERISTICS

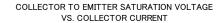






DC REVERSE CURRENT GAIN VS. COLLECTOR CURRENT





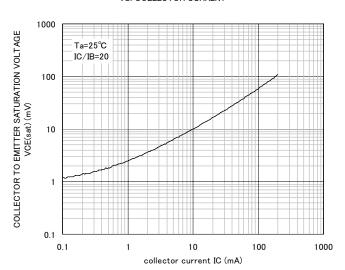
10

COLLECTOR CURRENT IC (mA)

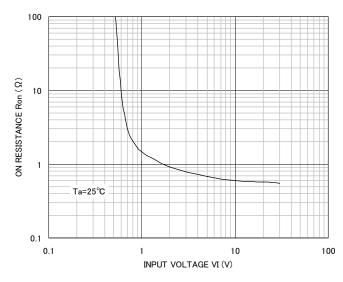
100

1000

0.1



ON RESISTANCE VS. INPUT VOLTAGE





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

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