

2SC5974

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

ISAHAYA 2SC5974 is a mini package resin sealed silicon NPN epitaxial transistor for muting and switching application

FEATURE

- High Emitter to Base voltage $V_{EBO}=50V$
- High Reverse h_{FE}
- Low ON RESISTANCE. $R_{ON}=1\Omega$
- Small packege for mounting

APPLICATION

For muting, switching application

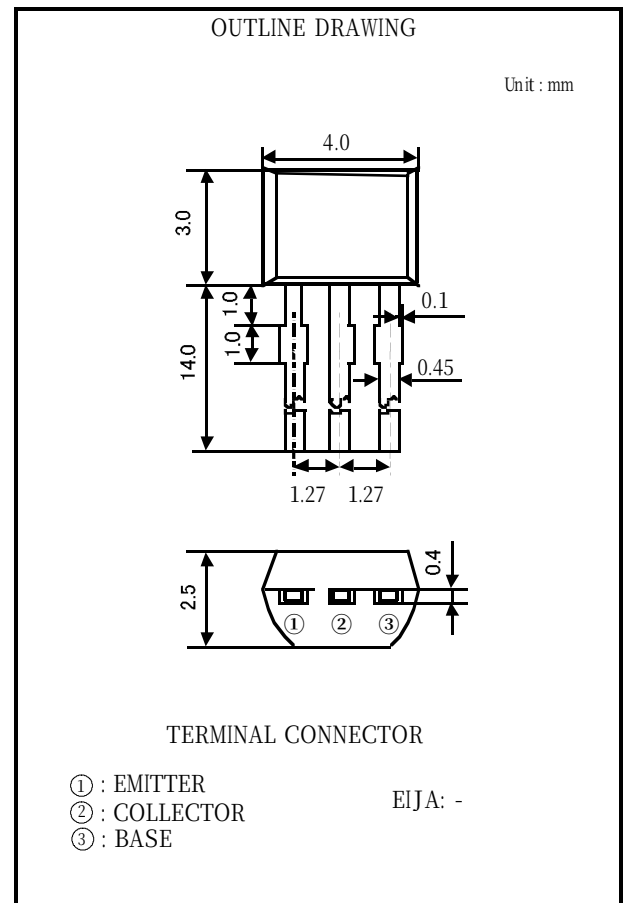
MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	50	V
V_{CEO}	Collector to Emitter voltage	12	V
V_{EBO}	Emitter to Base voltage	50	V
I_C	Collector current	200	mA
P_C	Collector dissipation	450	mW
T_j	Junction temperature	+125	°C
T_{stg}	Storage temprature	-55 ~ +125	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I_{CBO}	Collector cut off current	$V_{CB}=50V, I_E=0mA$			0.1	μA
I_{EBO}	Emitter cut off current	$V_{EB}=50V, I_C=0mA$			0.1	μA
h_{FE}	DC forward current gain	$V_{CE}=2V, I_C=4mA$	200		1200	
$V_{CE(sat)}$	C to E saturation voltage	$I_C=30mA, I_B=3mA$		30		mV
f_T	Gain bandwidth product	$V_{CE}=6V, I_C=4mA$		30		MHz
C_{ob}	Collector output capacitance	$V_{CB}=10V, I_E=0mA, f=1MHz$		5.0		pF

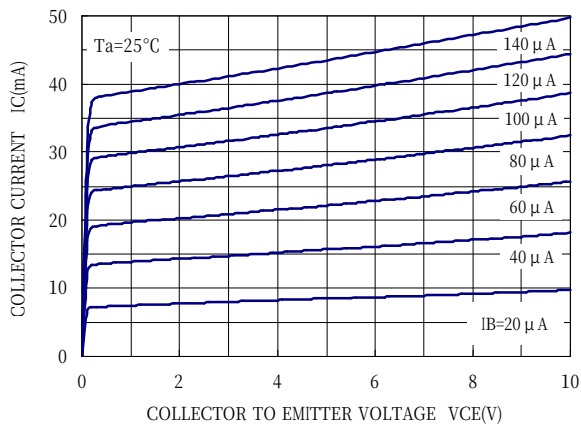
Item	A	B
h_{FE}	200 to 700	350 to 1200



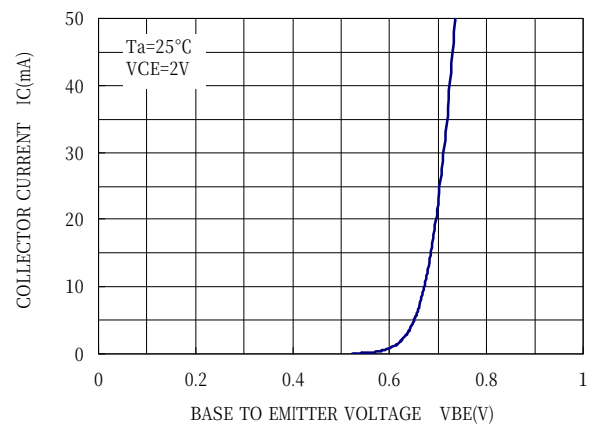
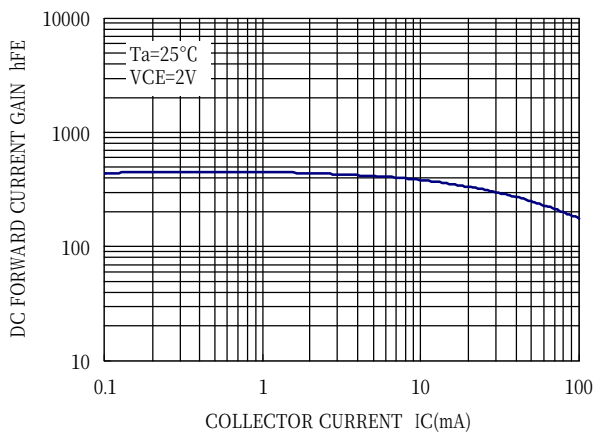
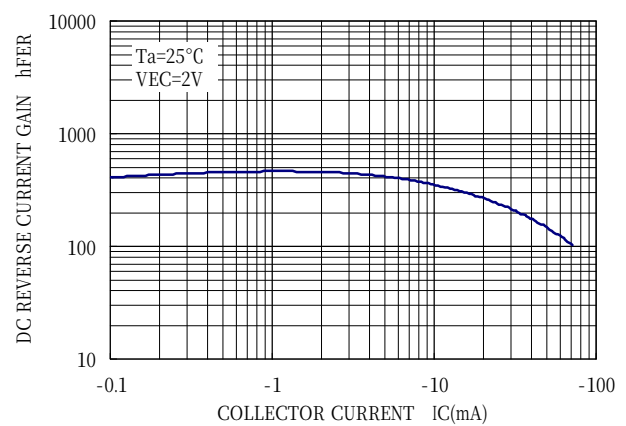
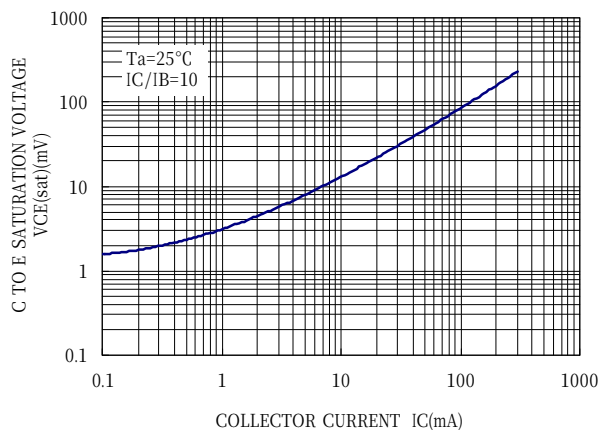
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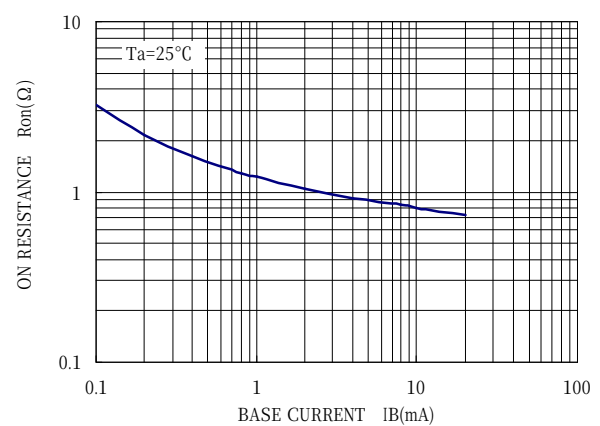
COMMON EMITTER OUTPUT



COMMON EMITTER TRANSFER

DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENTDC REVERSE CURRENT GAIN
VS. COLLECTOR CURRENTCOLLECTOR TO EMITTER SATURATION VOLTAGE
VS. COLLECTOR CURRENT

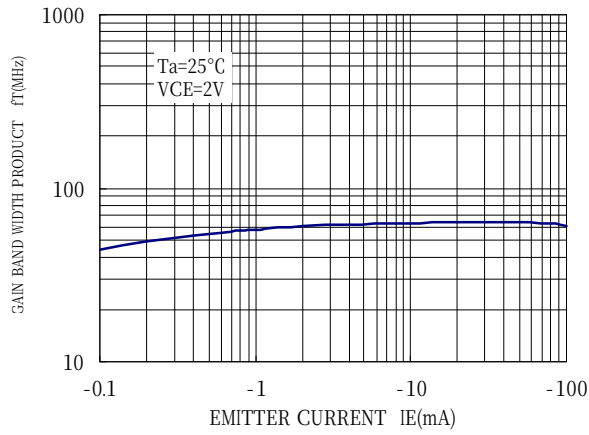
ON RESISTANCE VS. BASE CURRENT



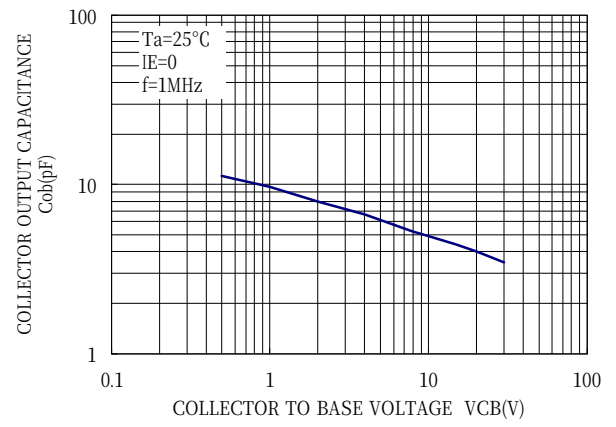
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GAIN BAND WIDTH PRODUCT VS.
EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE





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