

2SC5938FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

ISAHAYA 2SC5938 is a super 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. $R_{ON}=1$

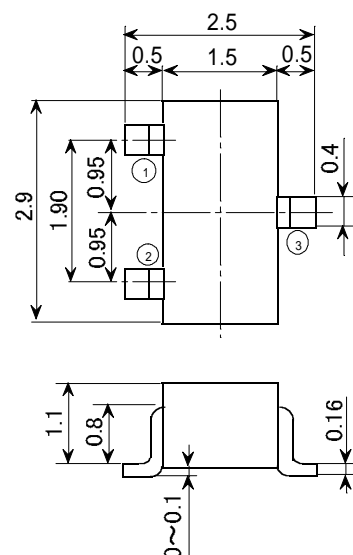
Small package for mounting

APPLICATION

For muting, switching application

OUTLINE DRAWING

Unit : mm



TERMINAL CONNECTOR

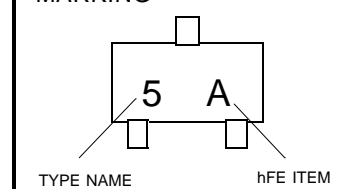
- ① : BASE
② : EMITTER
③ : COLLECTOR

EIIA:SC-59

MAXIMUM RATINGS ($T_a=25^\circ C$)

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	150	mW
T_j	Junction temperature	+125	
T_{stg}	Storage temprature	-55 ~ +125	

MARKING

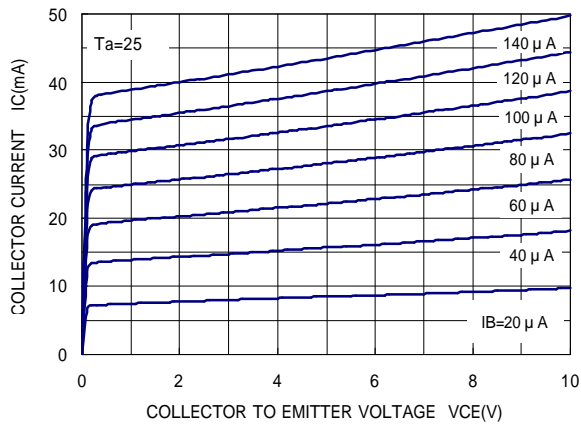
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

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

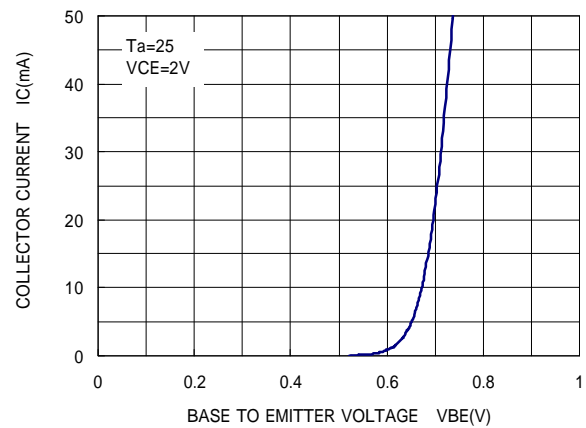
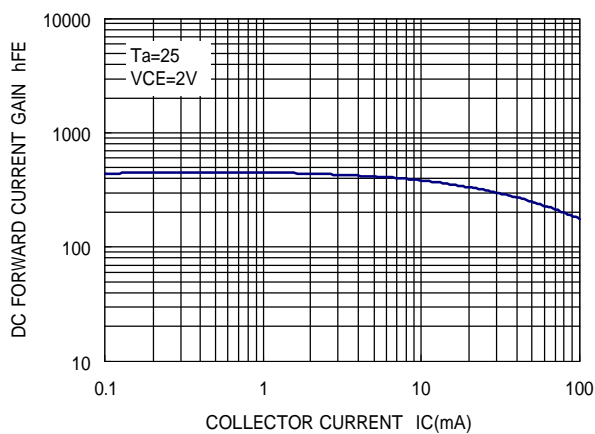
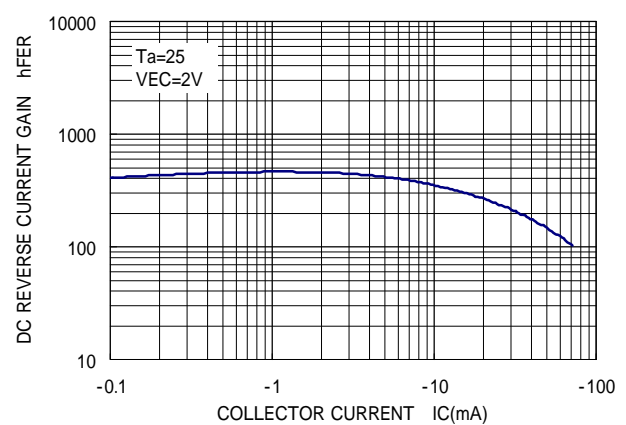
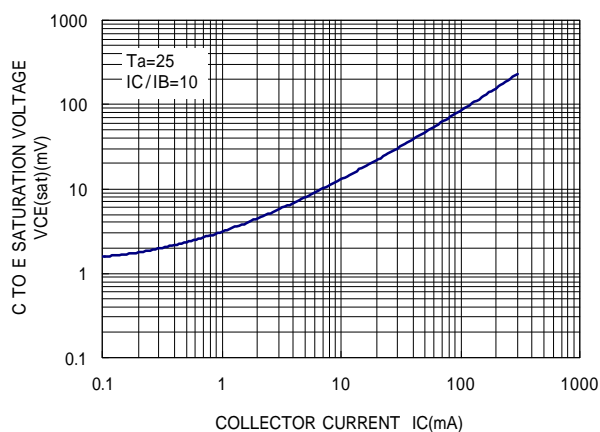
Item	A	B
h_{FE}	200 to 700	350 to 1200
Marking	5A	5B

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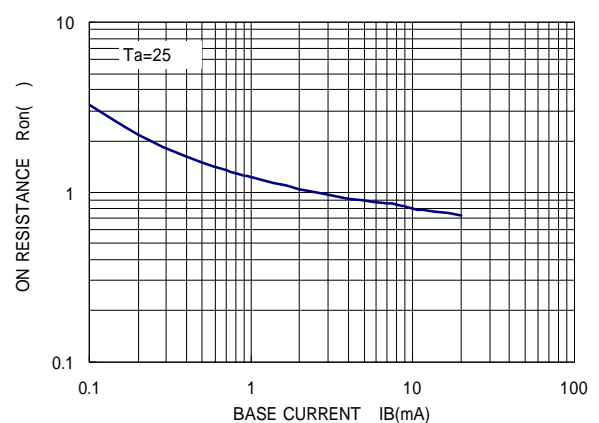
COMMON EMITTER OUTPUT



COMMON EMITTER TRANSFER

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

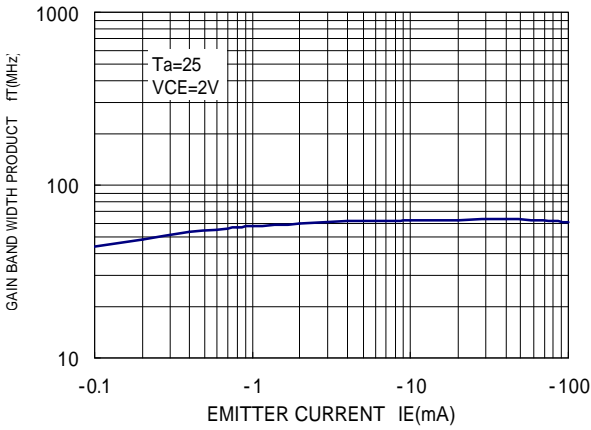
ON RESISTANCE VS. BASE CURRENT



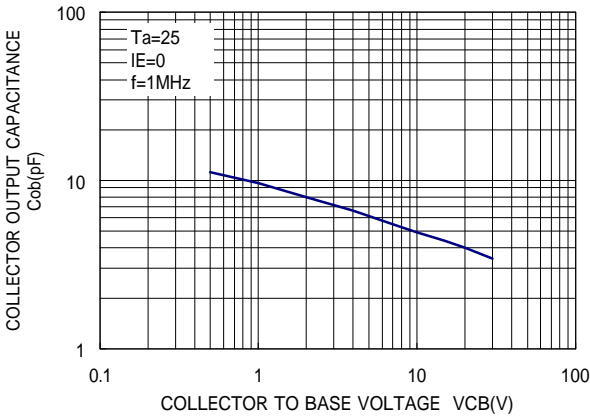
2SC5938

FOR LOW FREQUENCY AMPLIFY APPLICATION
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GAIN BAND WIDTH PRODUCT VS.
EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE





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