

2SC5938A

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

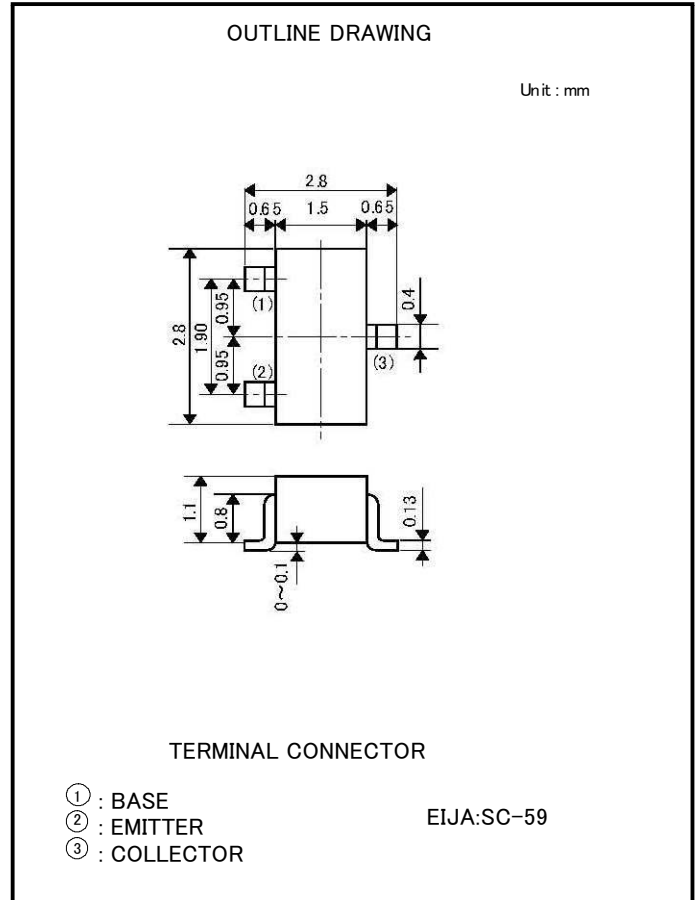
ISAHAYA 2SC5938A is a super mini package resin sealed silicon NPN epitaxial transistor for muting and switching application

FEATURE

- High Emitter to Base voltage $V_{EBO}=40V$
- High Reverse hFE
- Low ON RESISTANCE. $R_{ON}=1\Omega$
- Small package for mounting

APPLICATION

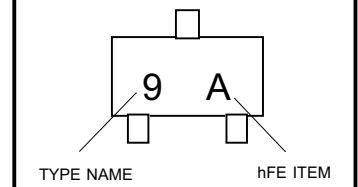
For muting, switching application



MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	50	V
V_{CEO}	Collector to Emitter voltage	20	V
V_{EBO}	Emitter to Base voltage	40	V
I_C	Collector current	200	mA
P_C	Collector dissipation	150	mW
T_j	Junction temperature	+125	°C
T_{stg}	Storage temprature	-55 ~ +125	°C

MARKING



ELECTRICAL CHARACTERISTICS (Ta=25°C)

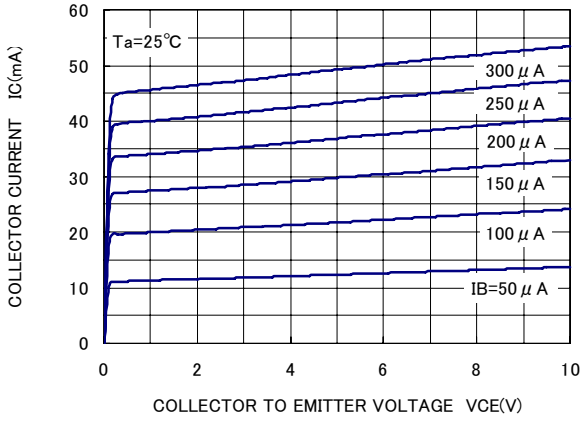
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I_{CBO}	Collector cut off current	$V_{CB}=50V, I_E=0mA$			0.1	μA
I_{EBO}	Emitter cut off current	$V_{EB}=40V, I_C=0mA$			0.1	μA
hFE	DC forward current gain	$V_{CE}=2V, I_C=4mA$	200		1200	
$V_{CE(sat)}$	C to E saturation voltage	$I_C=30mA, I_B=3mA$		30		mV
fT	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
hFE	200 to 700	350 to 1200
Marking	9A	9B

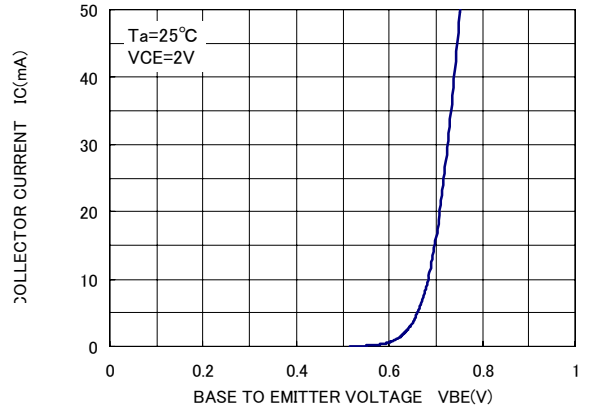
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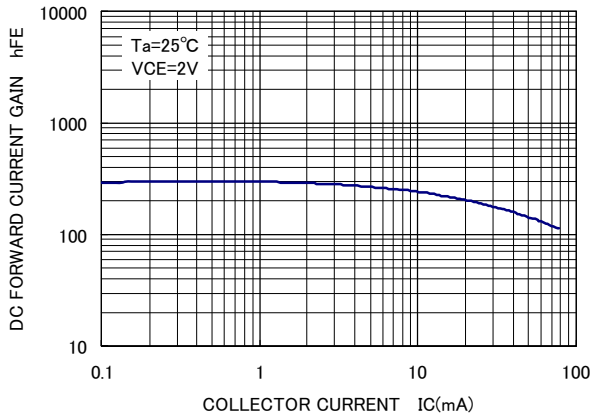
COMMON EMITTER OUTPUT



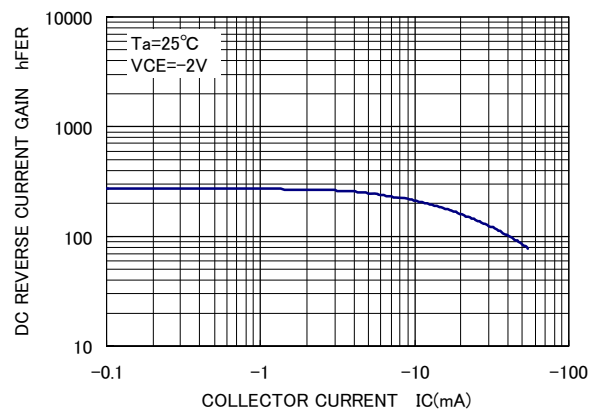
COMMON EMITTER TRANSFER



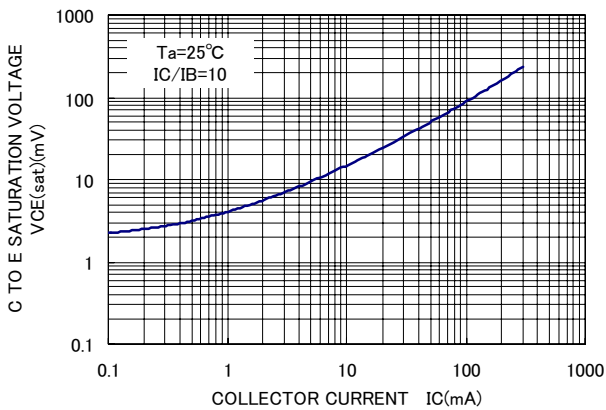
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



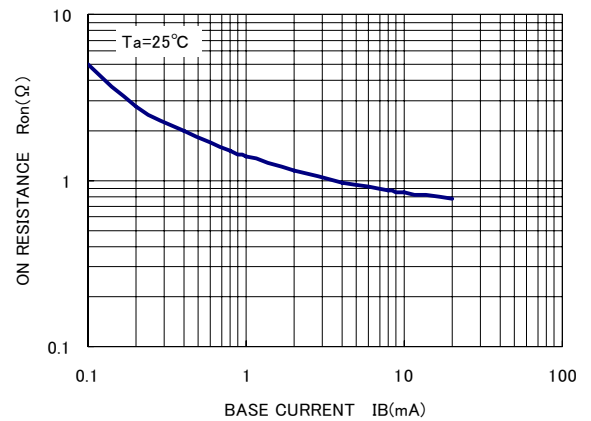
DC REVERSE CURRENT GAIN VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



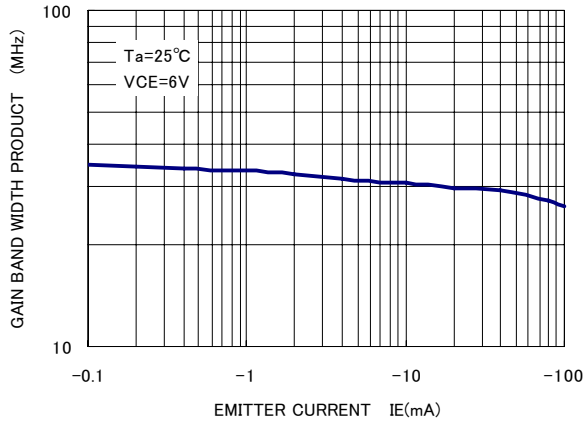
ON RESISTANCE VS. BASE CURRENT



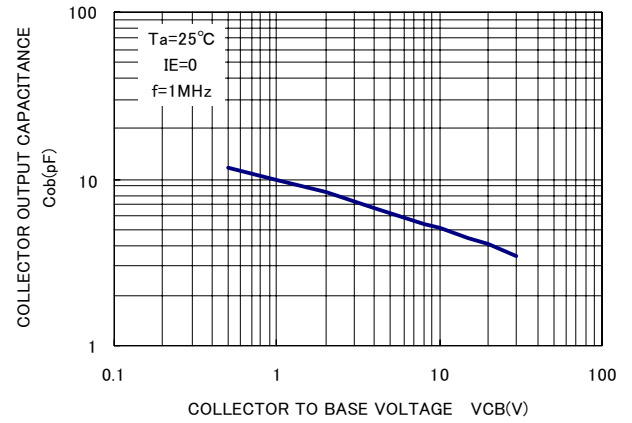
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GAIN BAND WIDTH PRODUCT VS.
EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE





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