

2SC5633

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

2SC5633 is a silicon NPN epitaxial type transistor. It is designed with high voltage application.

FEATURE

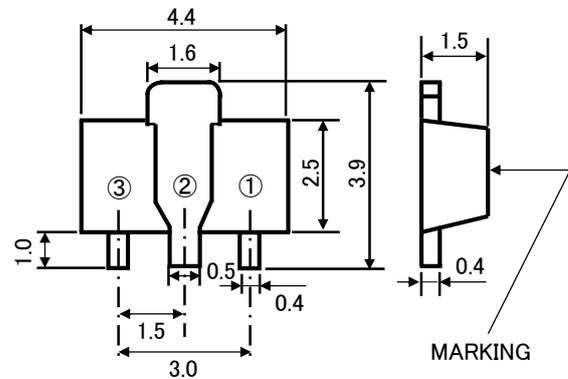
- Small collector to emitter saturation voltage
 $V_{CE(sat)}=0.5V$ max (@ $I_C=100mA/I_B=10mA$)
- Small package for easy mounting

APPLICATION

Hybrid IC, DC-DC converter

OUTLINE DRAWING

UNIT:mm



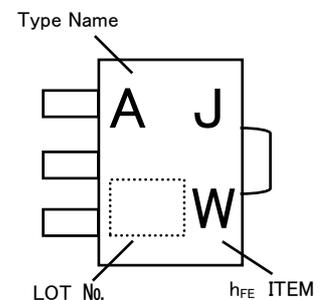
TERMINAL CONNECTOR

- ①: BASE JEITA: SC-62
- ②: COLLECTOR JEDEC: SOT-89
- ③: EMITTER

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

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	300	V
V_{EBO}	Emitter to Base voltage	7	V
V_{CEO}	Collector to Emitter voltage	300	V
I_C	Collector current	100	mA
P_C	Collector dissipation($T_a=25^\circ C$)	500	mW
T_j	Junction temperature	+150	$^\circ C$
T_{stg}	Storage temperature	-55 ~ +150	$^\circ C$

MARKING



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

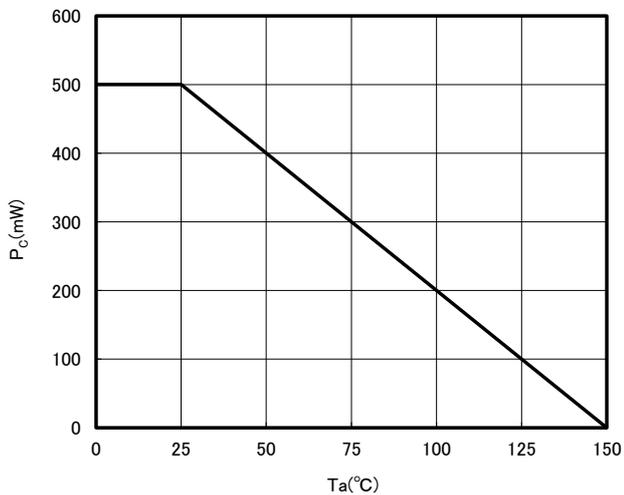
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B breakdown voltage	$I_C=50 \mu A, I_E=0mA$	300	-	-	V
$V_{(BR)EBO}$	E to B breakdown voltage	$I_E=50 \mu A, I_C=0mA$	7	-	-	V
$V_{(BR)CEO}$	C to E breakdown voltage	$I_C=1mA, R_{BE}=\infty$	300	-	-	V
I_{CBO}	Collector cut off current	$V_{CB}=300V, I_E=0mA$	-	-	0.5	μA
I_{EBO}	Emitter cut off current	$V_{EB}=5V, I_C=0mA$	-	-	0.5	μA
h_{FE}	DC forward current gain	$V_{CE}=10V, I_C=10mA$	60	-	305	-
$V_{CE(sat)}$	C to E saturation voltage	$I_C=100mA, I_B=10mA$	-	-	0.5	V
fT	Gain bandwidth product	$V_{CE}=6V, I_E=-10mA$	-	40	-	MHz
Cob	Collector output capacitance	$V_{CE}=6V, I_E=0mA, f=1MHz$	-	3.0	-	pF

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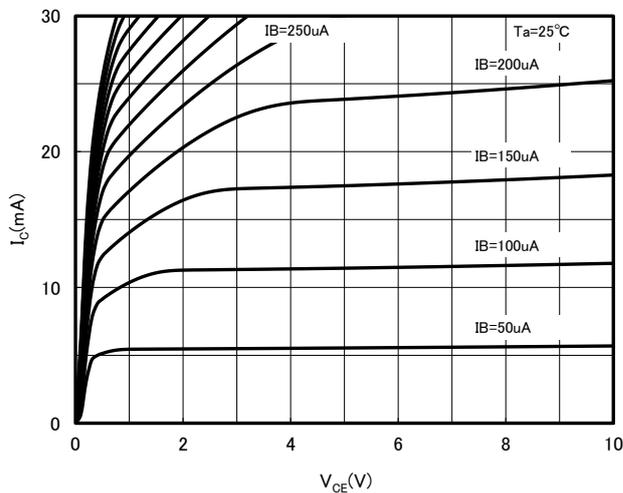
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TYPICAL CHARACTERISTICS

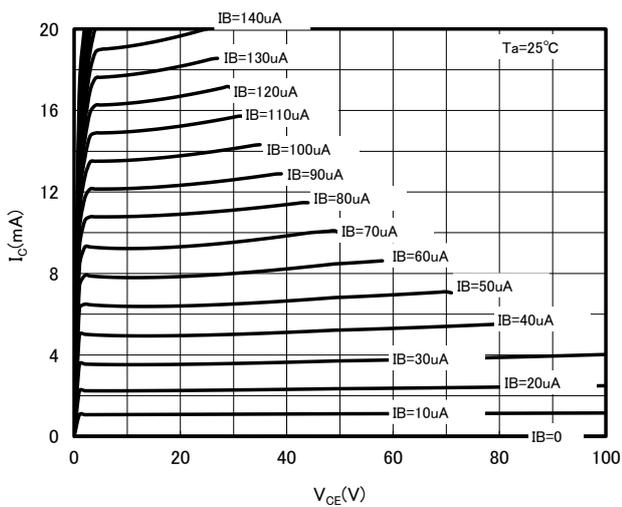
Pc-Ta



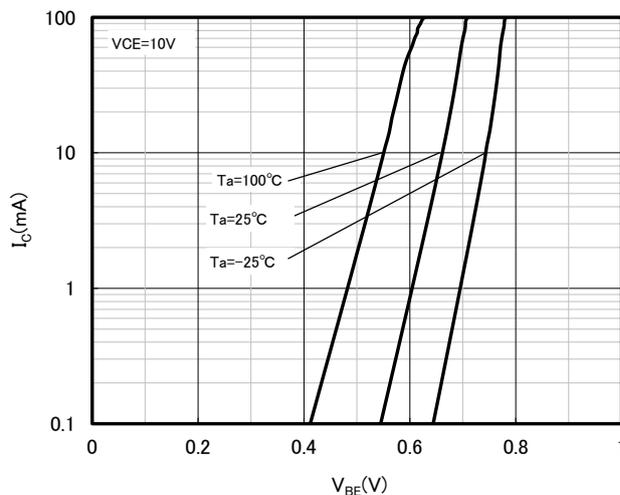
IC-VCE (1)



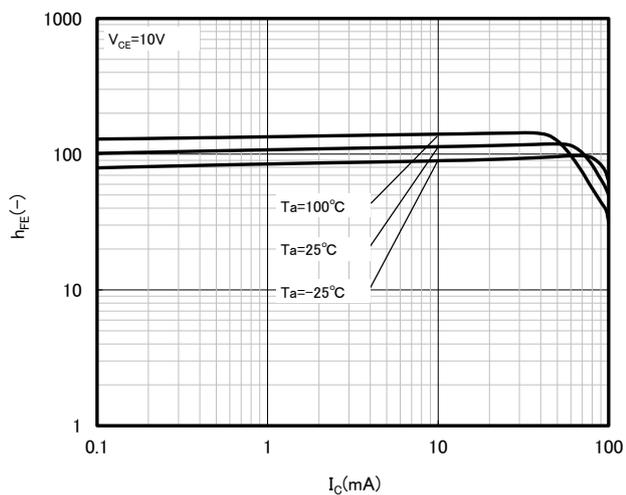
IC-VCE (2)



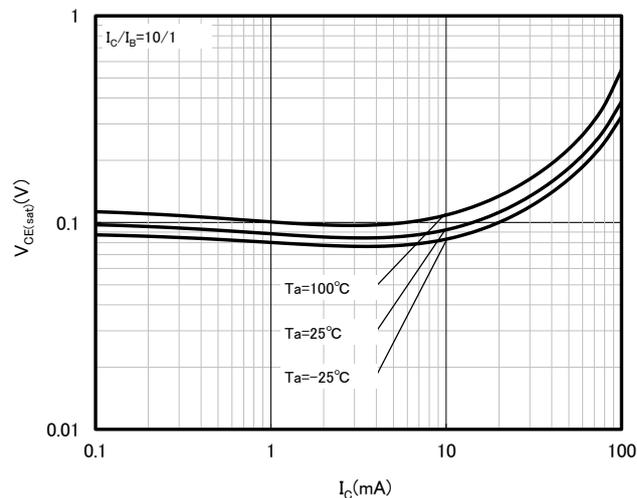
IC-VBE



hFE-IC



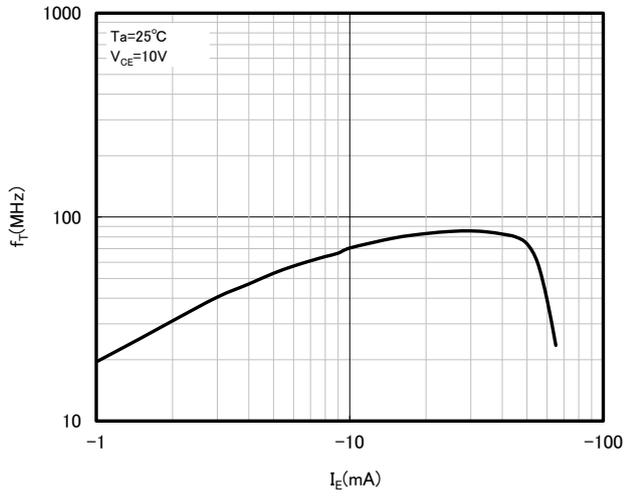
VCE(sat)-IC



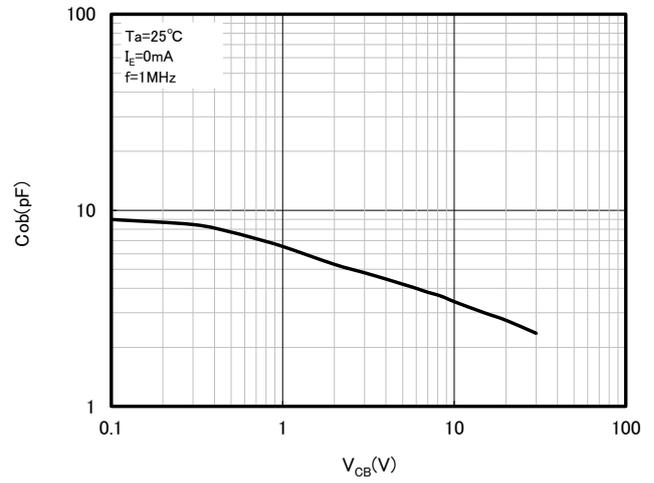
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$f_T - I_E$



$C_{ob} - V_{CB}$



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