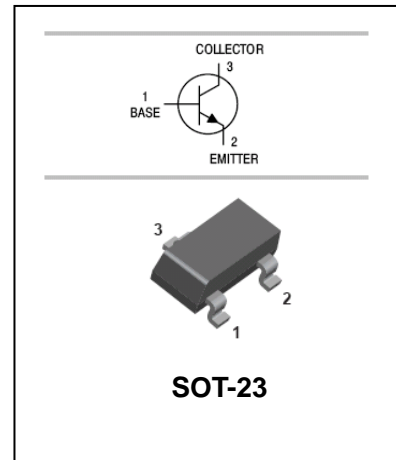


Silicon Epitaxial Planar Transistor

2SC5345

FEATURES

- High current transition frequency.
- Low output capacitance: $C_{ob}=1.4\text{pF}$
- Low base time constant and high gain.
- Excellent noise response.



APPLICATIONS

- General small signal amplifier.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SC5345	5345	SOT-23

MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current	20	mA
P_C	Collector Dissipation	200	mW
T_j, T_{stg}	Junction and Storage Temperature	-55~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Silicon Epitaxial Planar Transistor

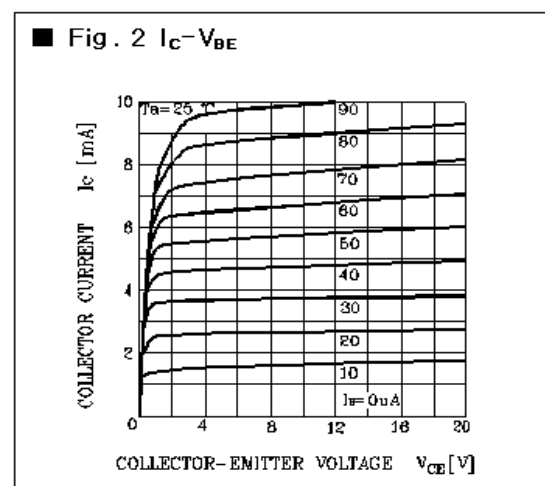
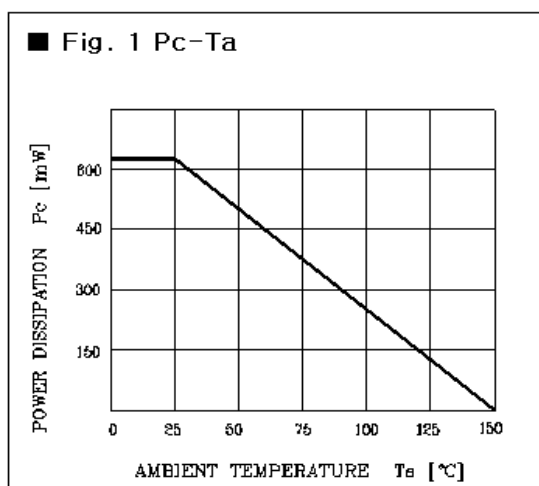
2SC5345

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	4			V
Collector cut-off current	I_{CBO}	$V_{CB}=30V, I_E=0$			0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$			0.5	μA
DC current gain	h_{FE}	$V_{CE}=6V, I_C=1mA$	40		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$			0.3	V
Transition frequency	f_T	$V_{CE}=6V, I_C=1mA$	550			MHz
Output capacitance	C_{ob}	$V_{CB}=6V, I_E=0, f=100MHz$			1.4	pF

CLASSIFICATION OF h_{FE}

Rank	R	O	Y
Range	40-80	70-140	120-240
Marking	5345		

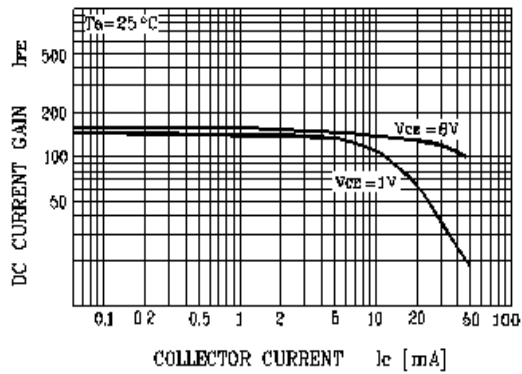
TYPICAL CHARACTERISTICS @ $T_a=25^\circ C$ unless otherwise specified



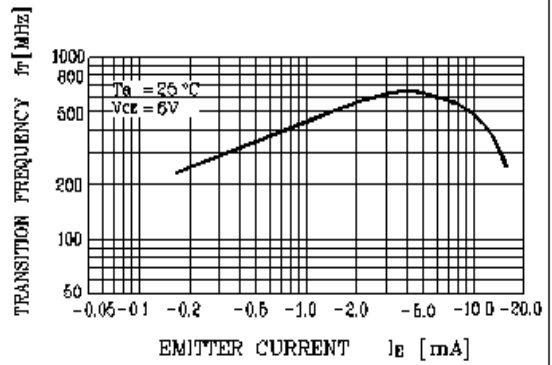
Silicon Epitaxial Planar Transistor

2SC5345

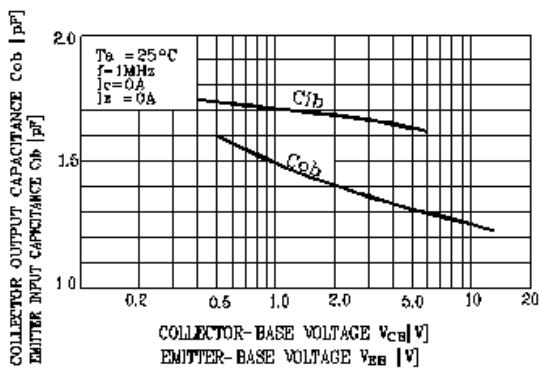
■ Fig. 3 $h_{FE}-I_C$



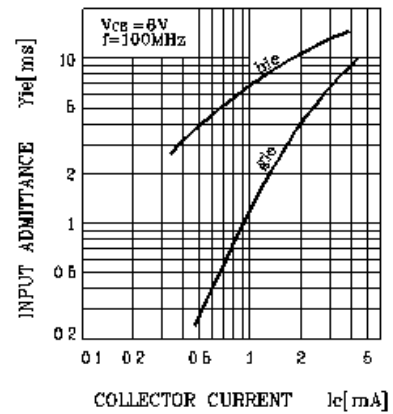
■ Fig. 4 f_T-I_E



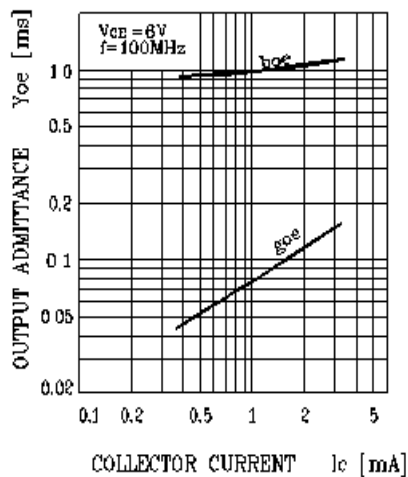
■ Fig. 5 $V_{CB}, V_{BE}-C_{ob}$



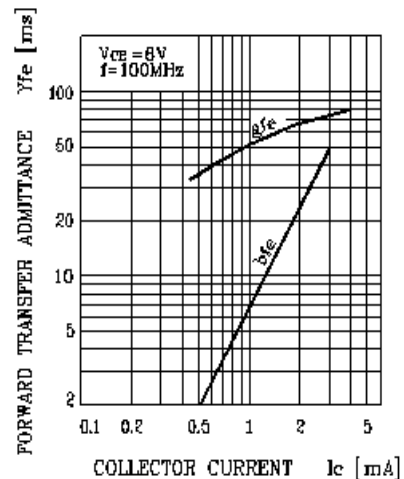
■ Fig. 6 I_C-Y_{ie}



■ Fig. 6 I_C-Y_{oe}



■ Fig. 7 I_C-Y_{fe}



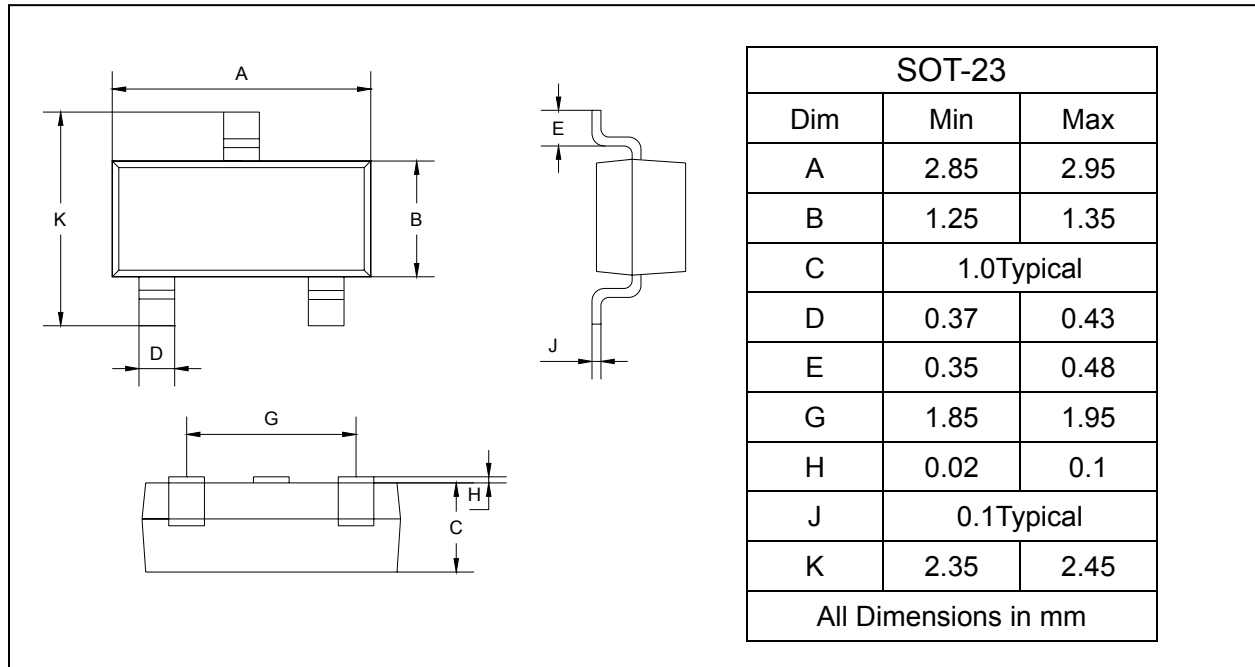
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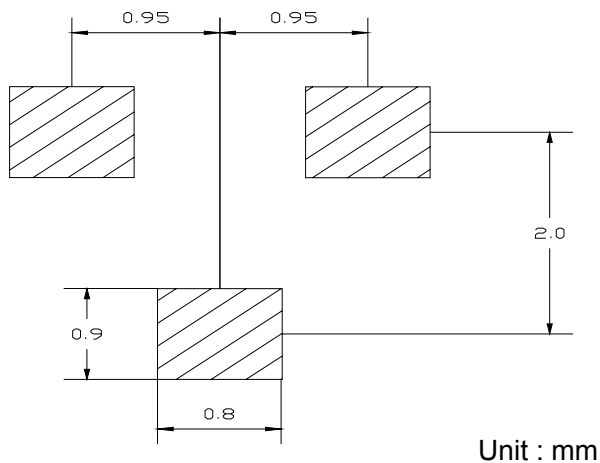
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SC5345	SOT-23	3000/Tape&Reel