

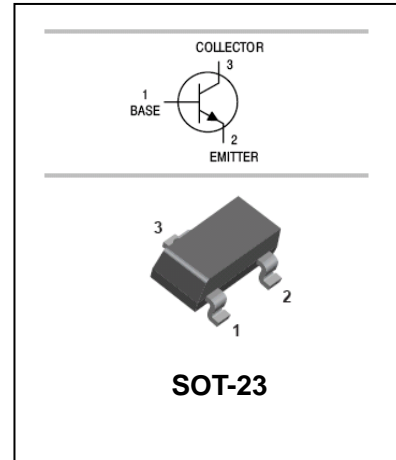


## Silicon Epitaxial Planar Transistor

## 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	150	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-55 to +150	$^\circ\text{C}$



**Silicon Epitaxial Planar Transistor**

**2SC5345**

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=5mA, I_B=0$	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	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=4V, I_C=0$			0.5	$\mu A$
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	$f_T$	$V_{CE}=6V, I_E=-1mA$		550		MHz
Output capacitance	$C_{ob}$	$V_{CB}=6V, I_E=0, f=1MHz$		1.4		pF

**CLASSIFICATION OF  $h_{FE}$**

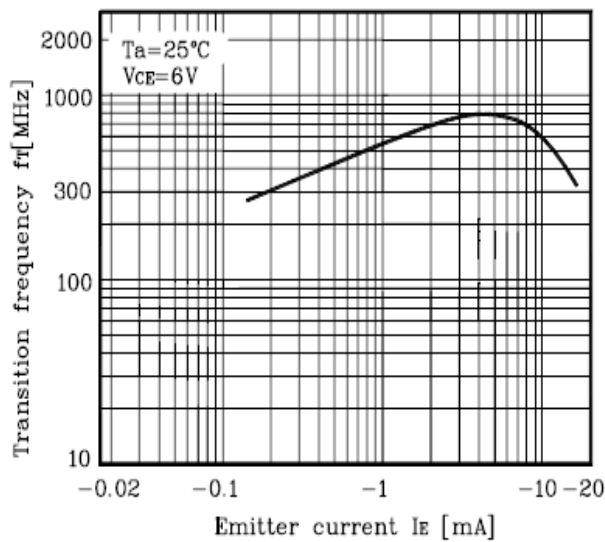
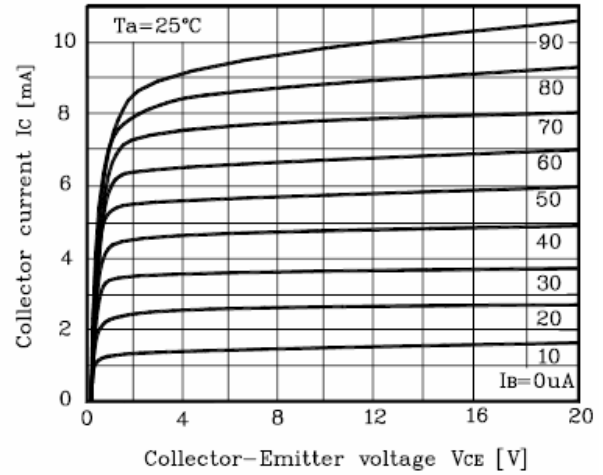
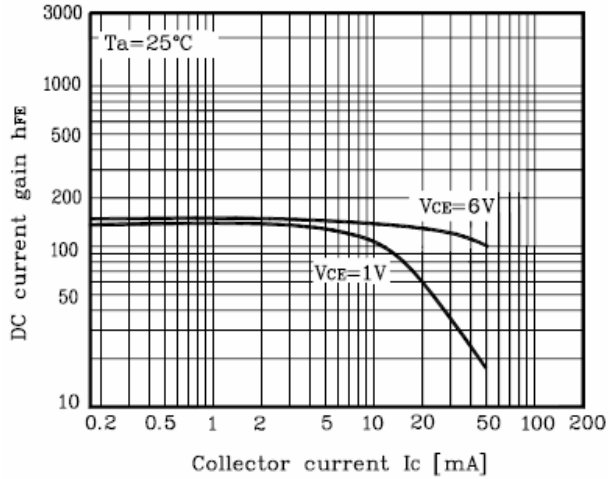
Rank	R	O	Y
Range	40-80	70-140	120-240
Marking	5345		



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



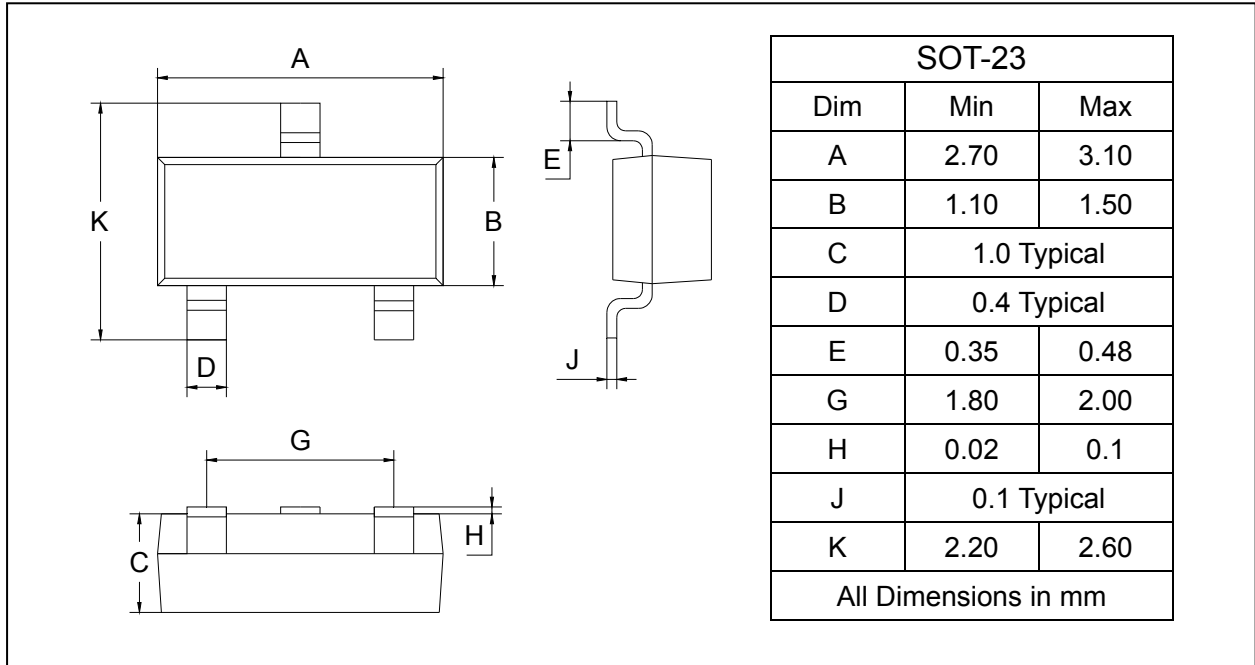
**Silicon Epitaxial Planar Transistor**

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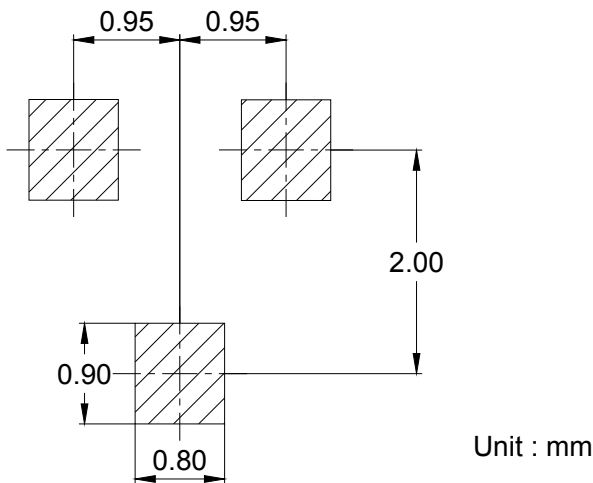
**PACKAGE OUTLINE**

Plastic surface mounted package

SOT-23



**SOLDERING FOOTPRINT**



**PACKAGE INFORMATION**

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