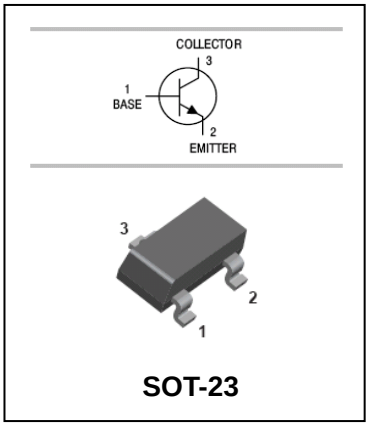
Silicon Epitaxial Planar Transistor **2SC945**

FEATURES

- High voltage and high current.
- Excellent h_{FE} linearity.
- Low noise.

Lead-free



APPLICATIONS

- Audio frequency amplifier.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SC945	CR	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	150	mA
P_C	Collector Dissipation	200	mW
T_j,T_{stg}	Junction and Storage Temperature	-55~150	℃

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Silicon Epitaxial Planar Transistor **2SC945**

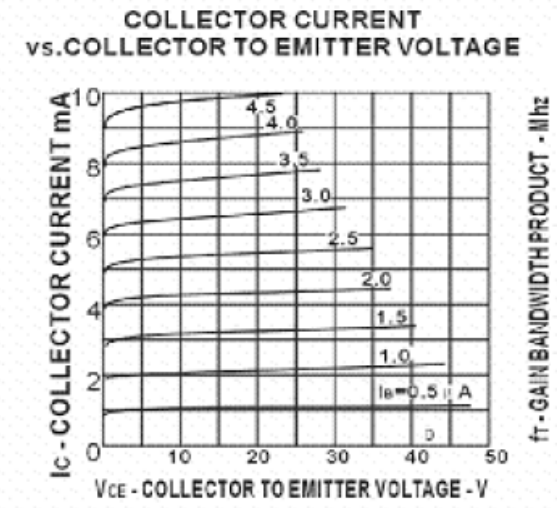
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=0.1mA,I_E=0	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=0.1mA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=60V,I_E=0			0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}=50V,I_B=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=6V,I_C=1mA V_{CE}=6V,I_C=0.1mA	130 40		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100mA, I_B=10mA			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=100mA, I_B=10mA			1	V
Transition frequency	f_T	V_{CE}=6V, I_C=10mA f=30MHz	150			MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz		3.0		pF
Noise figure	NF	V_{CE}=6V, I_C=0.1mA f=1kMHz,R_g=10kΩ		4	10	dB

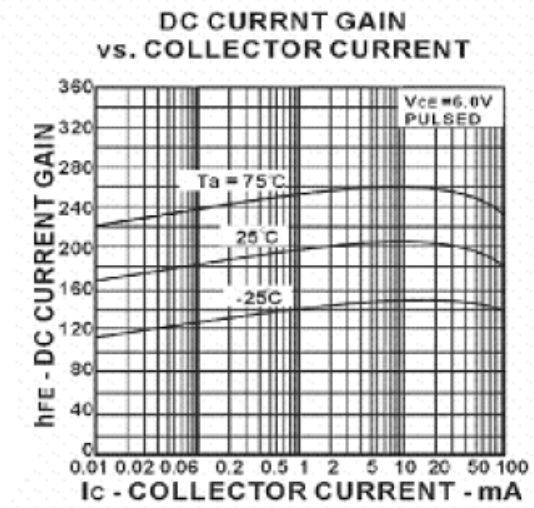
CLASSIFICATION OF $h_{FE(1)}$

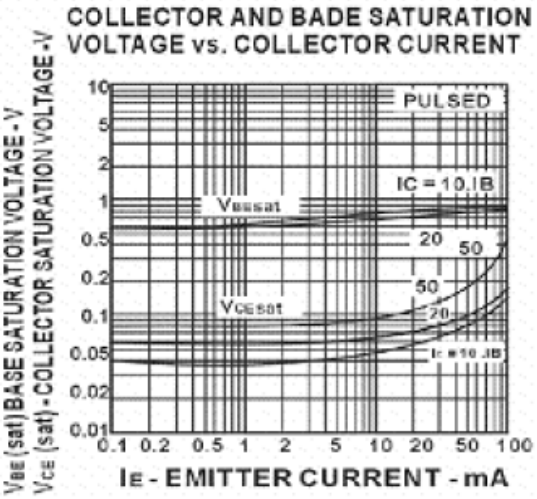
Rank	L	H
Range	130-200	200-400

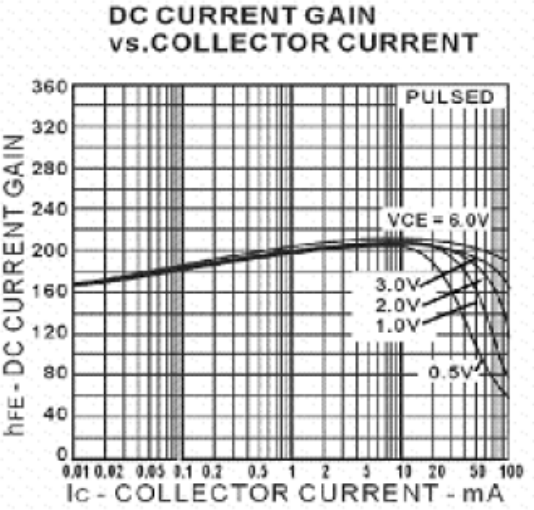
Silicon Epitaxial Planar Transistor **2SC945**

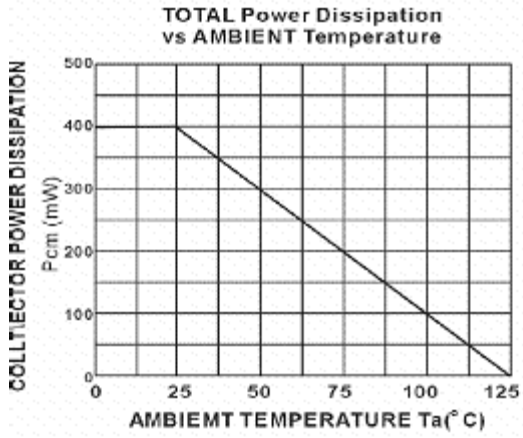
TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

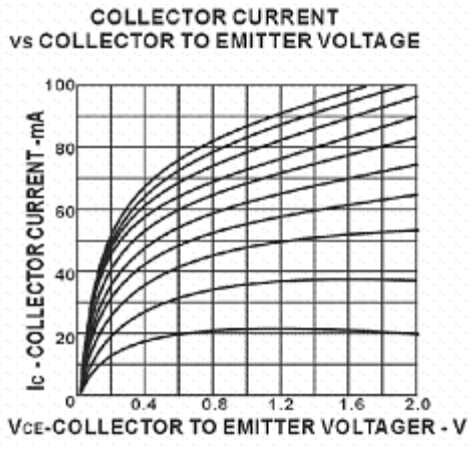








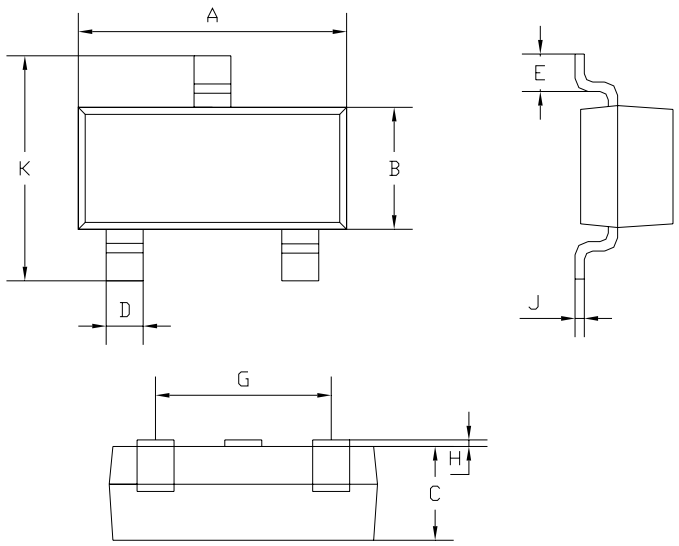




Silicon Epitaxial Planar Transistor **2SC945**

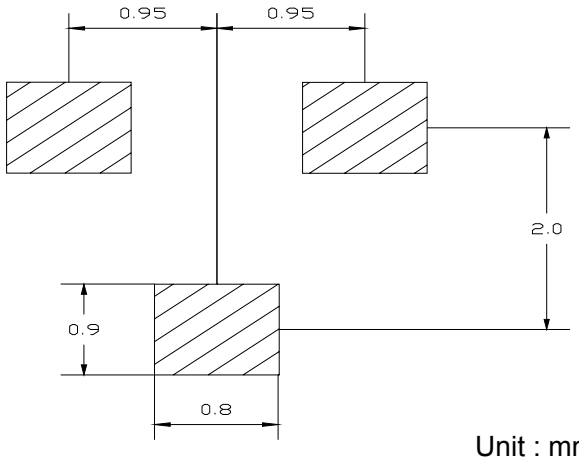
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1.0Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1Typical	
K	2.35	2.45
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
2SC945	SOT-23	3000/Tape&Reel