



Micro Commercial Components

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## Features

- Capable of 0.4Watts of Power Dissipation.
- Collector-current 0.15A
- Collector-base Voltage 60V
- Operating and storage junction temperature range: -55°C to +150°C
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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#### OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=0.1mA_{dc}, I_B=0$ )	50		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=1000\mu A_{dc}, I_E=0$ )	60		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=100\mu A_{dc}, I_C=0$ )	5.0		Vdc
$I_{CBO}$	Collector Cutoff Current ( $V_{CB}=60V_{dc}, I_E=0A_{dc}$ )		0.1	$\mu A_{dc}$
$I_{CER}$	Collector Cutoff Current ( $V_{CE}=55V_{dc}, R=10M\ \Omega$ )		0.1	$\mu A_{dc}$
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB}=5.0V_{dc}, I_C=0A_{dc}$ )		0.1	$\mu A_{dc}$

#### ON CHARACTERISTICS

$h_{FE(1)}$	DC Current Gain ( $I_C=1.0mA_{dc}, V_{CE}=6.0V_{dc}$ )	70	700	
$h_{FE(2)}$	DC Current Gain ( $I_C=0.1mA_{dc}, V_{CE}=6.0V_{dc}$ )	40		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=100mA_{dc}, I_B=10mA_{dc}$ )		0.3	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ( $I_C=100mA_{dc}, I_B=10mA_{dc}$ )		1.0	Vdc
$V_{BE}$	Base-Emitter Voltage ( $I_E=310mA_{dc}$ )		1.4	Vdc

#### SMALL-SIGNAL CHARACTERISTICS

$f_T$	Transistor Frequency ( $I_C=10mA_{dc}, V_{CE}=6.0V_{dc}, f=30MHz$ )	150		MHz
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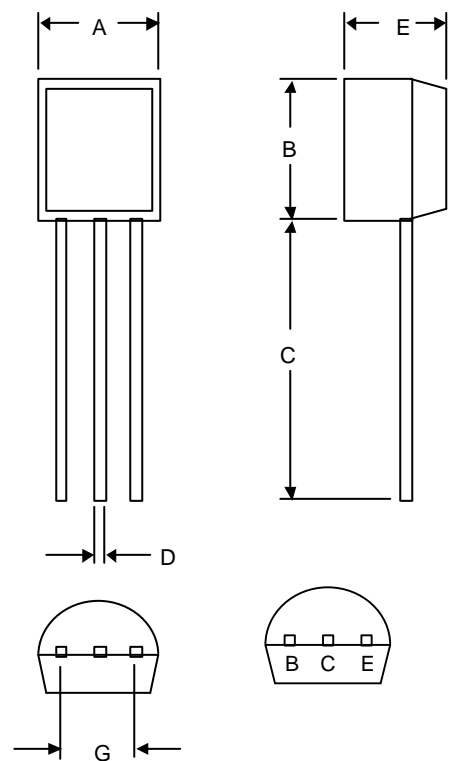
#### CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700

## 2SC945

### NPN Silicon Plastic-Encapsulate Transistor

#### TO-92



#### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.170	.190	4.33	4.83	
B	.170	.190	4.30	4.83	
C	.550	.590	13.97	14.97	
D	.010	.020	0.36	0.56	
E	.130	.160	3.30	3.96	
G	.010	.104	2.44	2.64	



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