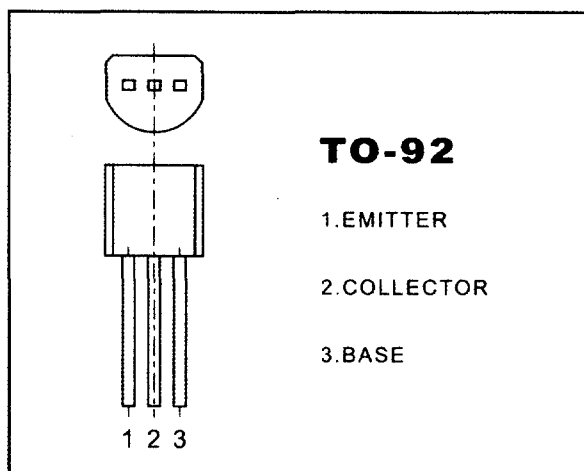


TO-92 Plastic-Encapsulate Transistors

C945 TRANSISTOR(NPN)



FEATURES

Power dissipation

P_{CM} : 0.4W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 0.15 A

Collector-base voltage

$V_{(BR)CBO}$: 60 V

Operating and storage junction temperature range

T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$

ELECTRICAL CHARACTERISTICS

($T_{amb}=25^{\circ}C$ unless otherwise specified)

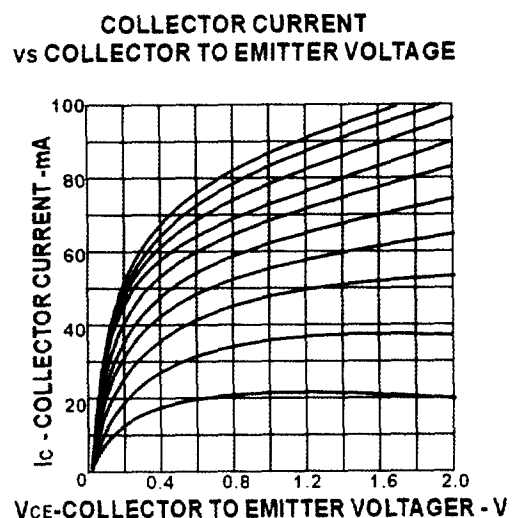
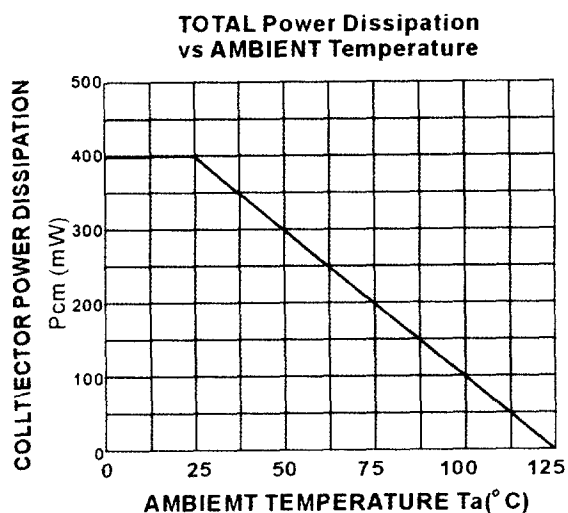
Parameter	Symbol	Test Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 1000 \mu A, I_E = 0$	60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 0.1 mA, I_B = 0$	50		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100 \mu A, I_C = 0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB} = 60 V, I_E = 0$		0.1	μA
Collector cut-off current	I_{CER}	$V_{CE} = 55 V, R = 10 M\Omega$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 V, I_C = 0$		0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 6 V, I_C = 1 mA$	70	700	
	$h_{FE(2)}$	$V_{CE} = 6 V, I_C = 0.1 mA$	40		
Collector-emitter saturation voltage	V_{CEsat}	$I_C = 100 mA, I_B = 10 mA$		0.3	V
Base-emitter saturation voltage	V_{BEsat}	$I_C = 100 mA, I_B = 10 mA$		1	V
Base-emitter voltage	V_{BE}	$I_E = 310 mA$		1.4	V
Transition frequency	f_T	$V_{CE} = 6 V, I_C = 10 mA$ $f = 30 MHz$	150		MHz

CLASSIFICATION OF $h_{FE(1)}$

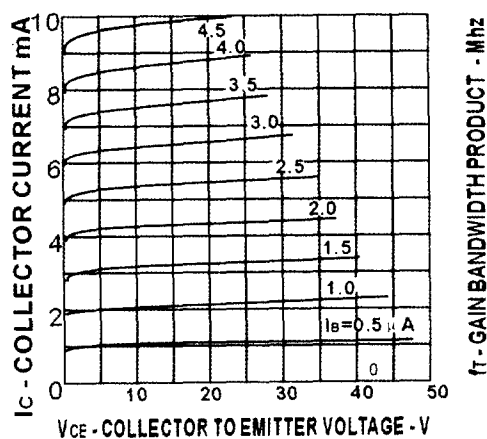
Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700

Typical Characteristics

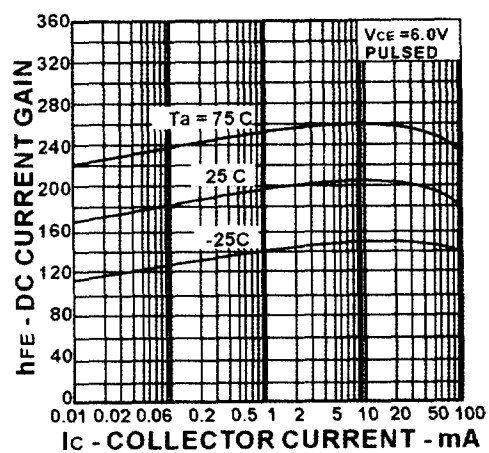
C945



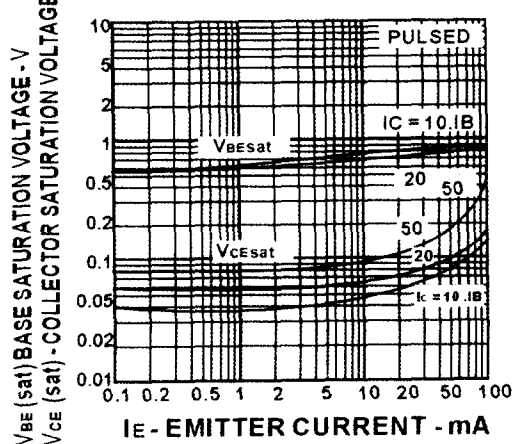
**COLLECTOR CURRENT
vs. COLLECTOR TO EMITTER VOLTAGE**



**DC CURRENT GAIN
vs. COLLECTOR CURRENT**



**COLLECTOR AND BASE SATURATION
VOLTAGE vs. COLLECTOR CURRENT**



**DC CURRENT GAIN
vs. COLLECTOR CURRENT**

