

TO-92 Plastic-Encapsulate Transistors

A92 TRANSISTOR (PNP)

FEATURES

Power dissipation

$$P_{CM} : 0.625 \text{ W (} T_{amb}=25^{\circ}\text{C)}$$

Collector current

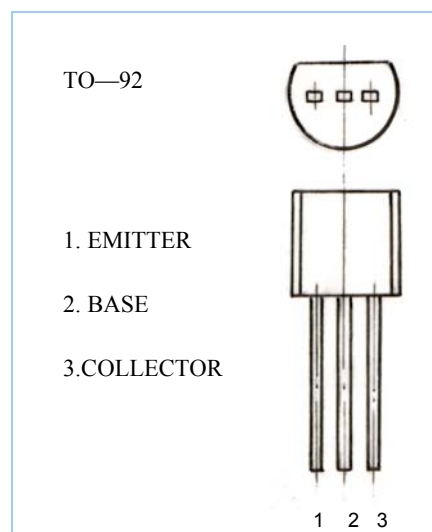
$$I_{CM} : -0.3 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO} : -300 \text{ V}$$

Operating and storage junction temperature range

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



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

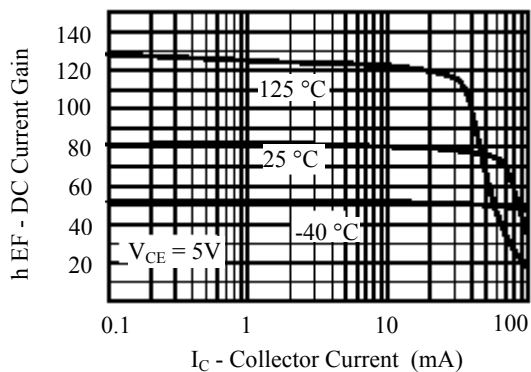
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100 \mu\text{A}, I_E = 0$	-300		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1 \text{ mA}, I_B = 0$	-300		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10 \mu\text{A}, I_C = 0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB} = -200 \text{ V}, I_E = 0$		-0.25	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -3 \text{ V}, I_C = 0$		-0.25	μA
DC current gain	$H_{FE(1)}$	$V_{CE} = -10 \text{ V}, I_C = -1 \text{ mA}$	25		
	$H_{FE(2)}$	$V_{CE} = -10 \text{ V}, I_C = -10 \text{ mA}$	80	250	
	$H_{FE(3)}$	$V_{CE} = -10 \text{ V}, I_C = -50 \text{ mA}$	25		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -20 \text{ mA}, I_B = -2 \text{ mA}$		-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -20 \text{ mA}, I_B = -2 \text{ mA}$		-0.9	V
Transition frequency	f_T	$V_{CE} = -5 \text{ V}, I_C = -10 \text{ mA}$ $f = 30 \text{ MHz}$	50		MHz

CLASSIFICATION OF $H_{FE(2)}$

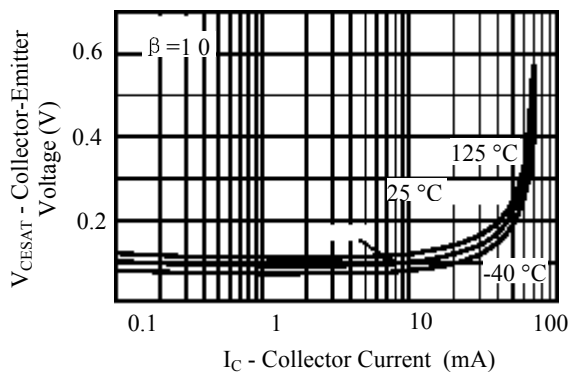
Rank	A	B ₁	B ₂	C
Range	80-100	100-150	150-200	200-250

Typical Characteristics

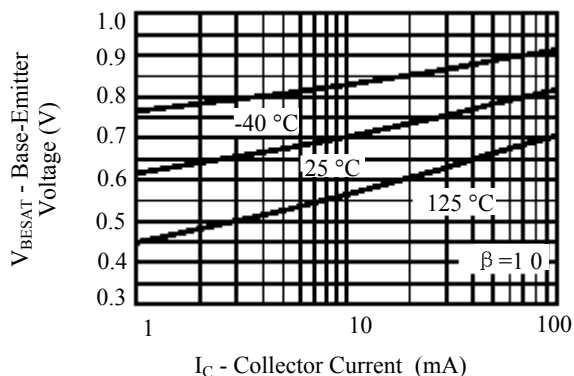
DC Current Gain
vs Collector Current



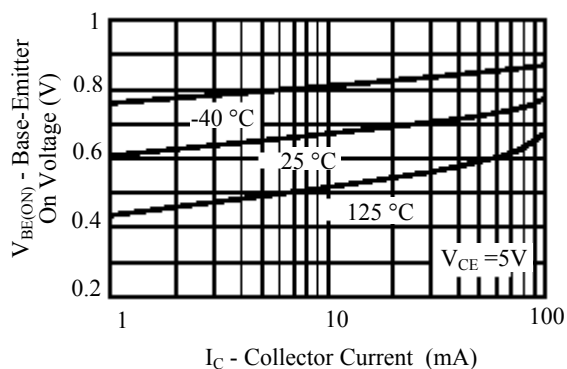
Collector-Emitter Saturation
Voltage vs Collector Current



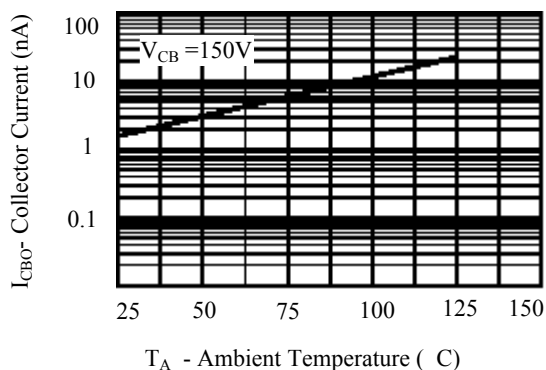
Base-Emitter Saturation
Voltage vs Collector Current



Base-Emitter ON Voltage vs
Collector Current



Collector-Cutoff Current
vs Ambient Temperature



Collector-Base and Emitter-Base
Capacitance vs Reverse Bias

