



TO-92 Plastic-Encapsulate Transistors

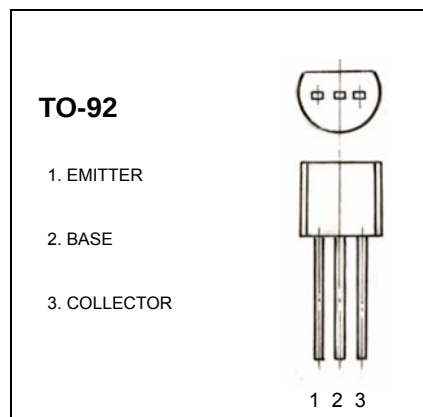
2SC1675 TRANSISTOR (NPN)

FEATURES

- 2SC1675 is designed for use in AM converter
- AM/FM IF amplifier and local oscillator of AM/FM tuner

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_{C}	Collector Current -Continuous	0.05	A
P_{C}	Collector Power Dissipation	0.25	W
T_{j}	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	$I_{\text{C}}=10\mu\text{A}$, $I_{\text{E}}=0$	50			V
Collector-emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	$I_{\text{C}}=5\text{mA}$, $I_{\text{B}}=0$	30			V
Emitter-base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	$I_{\text{E}}=10\mu\text{A}$, $I_{\text{C}}=0$	5			V
Collector cut-off current	I_{CBO}	$V_{\text{CB}}=50\text{V}$, $I_{\text{E}}=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{\text{EB}}=5\text{V}$, $I_{\text{C}}=0$			0.1	μA
DC current gain	h_{FE}	$V_{\text{CE}}=6\text{V}$, $I_{\text{C}}=1\text{mA}$	40		240	
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}}=10\text{mA}$, $I_{\text{B}}=1\text{mA}$			0.3	V
Base-emitter voltage	$V_{\text{BE(on)}}$	$V_{\text{CE}}=6\text{V}$, $I_{\text{C}}=1\text{mA}$			0.75	V
Transition frequency	f_{T}	$V_{\text{CE}}=6\text{V}$, $I_{\text{C}}=1\text{mA}$	150			MHz
Collector output capacitance	C_{ob}	$V_{\text{CB}}=6\text{V}$, $I_{\text{E}}=0$, $f=1\text{MHz}$			2.5	pF

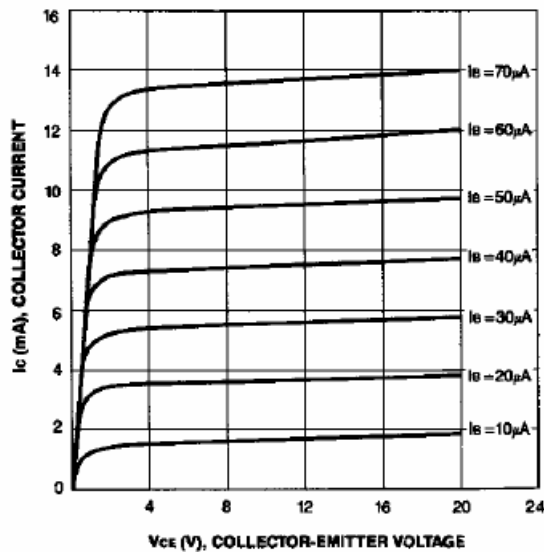
CLASSIFICATION OF h_{FE}

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

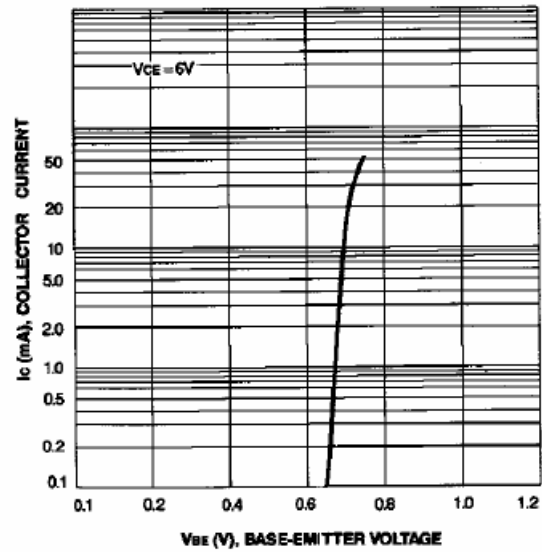
Typical Characteristics

2SC1675

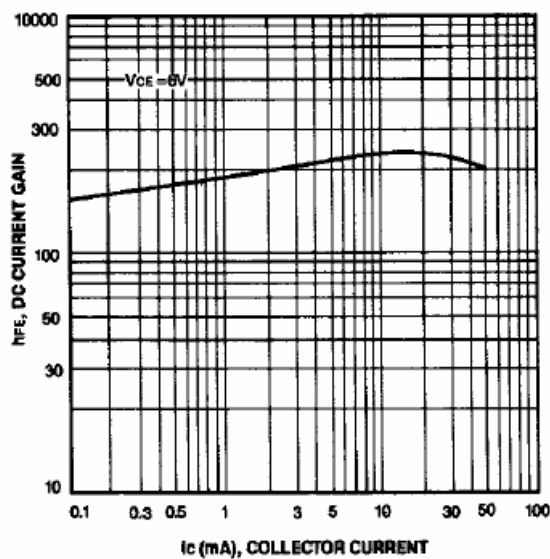
STATIC CHARACTERISTIC



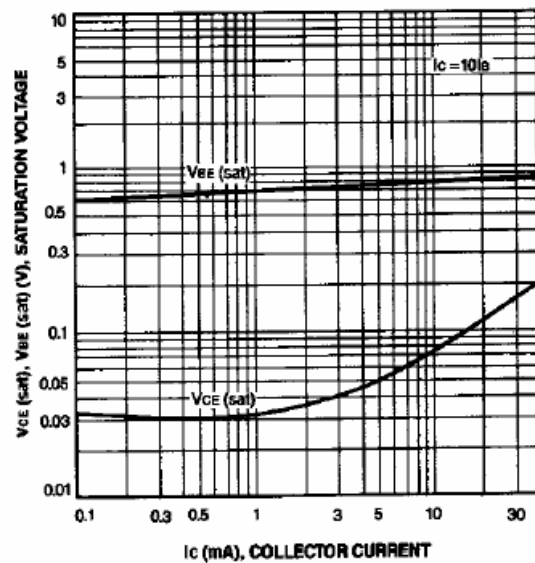
BASE-EMITTER ON VOLTAGE



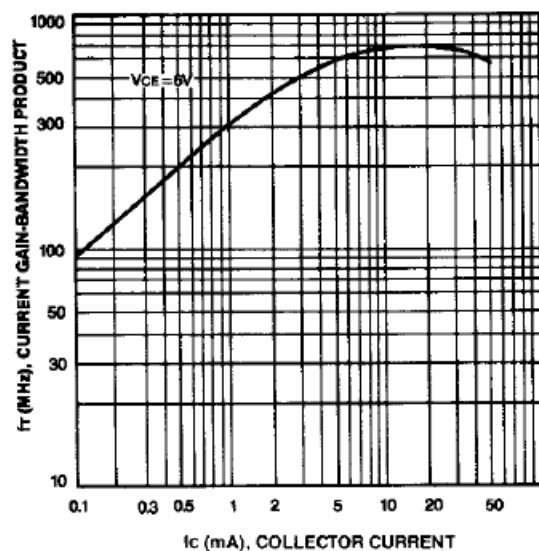
DC CURRENT GAIN



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT



COLLECTOR INPUT CAPACITANCE
COLLECTOR OUTPUT CAPACITANCE

