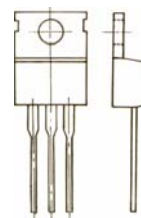


**TO-220 Plastic-Encapsulate Transistors****2SA940** TRANSISTOR (PNP)**FEATURES**

- Wide safe Operating Area.
- Complementary to 2SC2703

TO-220

1. BASE
2. COLLECTOR
3. EMITTER



1 2 3

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-150	V
V_{CEO}	Collector-Emitter Voltage	-150	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_{C}	Collector Current -Continuous	-1.5	A
P_{C}	Collector Power Dissipation	1.5	W
T_{j}	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-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	$V_{(\text{BR})\text{CBO}}$	$I_{\text{C}}=-100\mu\text{A}$, $I_{\text{E}}=0$	-150			V
Collector-emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	$I_{\text{C}}=-1\text{mA}$, $I_{\text{B}}=0$	-150			V
Emitter-base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	$I_{\text{E}}=-100\mu\text{A}$, $I_{\text{C}}=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{\text{CB}}=-120\text{V}$, $I_{\text{E}}=0$			-10	μA
Emitter cut-off current	I_{EBO}	$V_{\text{EB}}=-5\text{V}$, $I_{\text{C}}=0$			-10	μA
DC current gain	h_{FE}	$V_{\text{CE}}=-10\text{V}$, $I_{\text{C}}=-0.5\text{A}$	40		140	
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}}=-0.5\text{A}$, $I_{\text{B}}=-50\text{mA}$			-1.5	V
Base-emitter voltage	V_{BE}	$V_{\text{CE}}=-10\text{V}$, $I_{\text{C}}=-0.5\text{A}$	-0.65		-0.85	V
Transition frequency	f_{T}	$V_{\text{CE}}=-10\text{V}$, $I_{\text{C}}=-0.5\text{A}$		4		MHz
Collector output capacitance	C_{ob}	$V_{\text{CB}}=-10\text{V}$, $I_{\text{E}}=0$, $f=1\text{MHz}$		55		pF

Typical Characteristics

2SA940

