



# TIGER ELECTRONIC CO.,LTD

## TO-92 Plastic-Encapsulate Transistors

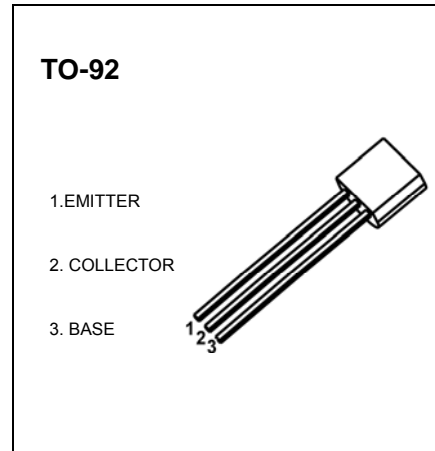
**2SA950** TRANSISTOR (PNP)

**FEATURES**

- 1W Output Applications
- Complementary to 2SC2120

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

Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	-35	V
$V_{CE0}$	Collector-Emitter Voltage	-30	V
$V_{EB0}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-0.8	A
$P_C$	Collector Power Dissipation	0.6	W
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55 to +150	$^\circ\text{C}$



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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CB0}$	$I_C = -0.1\text{mA}$ , $I_E = 0$	-35			V
Collector-emitter breakdown voltage	$V_{(BR)CE0}$	$I_C = -10\text{mA}$ , $I_B = 0$	-30			V
Emitter-base breakdown voltage	$V_{(BR)EB0}$	$I_E = -0.1\text{mA}$ , $I_C = 0$	-5			V
Collector cut-off current	$I_{CB0}$	$V_{CB} = -35\text{V}$ , $I_E = 0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EB0}$	$V_{EB} = -5\text{V}$ , $I_C = 0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE} = -1\text{V}$ , $I_C = -100\text{mA}$	100		320	
	$h_{FE(2)}$	$V_{CE} = -1\text{V}$ , $I_C = -700\text{mA}$	35			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}$ , $I_B = -20\text{mA}$			-0.7	V
Emitter-base voltage	$V_{BE}$	$V_{CE} = -1\text{V}$ , $I_C = -10\text{mA}$	-0.5		-0.8	V
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10\text{V}$ , $I_E = 0$ $f = 1\text{MHz}$		19		pF
Transition frequency	$f_T$	$V_{CE} = -5\text{V}$ , $I_C = -10\text{mA}$		120		MHz

**CLASSIFICATION OF  $h_{FE(1)}$**

Rank	O	Y
Range	100-200	160-320

# Typical Characteristics

# 2SA950

