



# DATA SHEET

SEMICONDUCTOR

SS8550

## TO-92 Plastic-Encapsulate Transistors



TRANSISTOR (PNP)

### FEATURES

Power dissipation

$P_{CM} : 1 \text{ W}$  ( $T_A=25^\circ\text{C}$ )

$: 2 \text{ W}$  ( $T_C=25^\circ\text{C}$ )

TO-92

1. EMITTER
2. BASE
3. COLLECTOR



1 2 3

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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-40	V
$V_{CEO}$	Collector-Emitter Voltage	-25	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-1500	mA
$T_J, T_{stg}$	Junction and Storage Temperature	-55-150	$^\circ\text{C}$

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-0.1\text{mA}, I_B=0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-40\text{V}, I_E=0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{CEO}$	$V_{CE}=-20\text{V}, I_E=0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-5\text{V}, I_C=0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=-1\text{V}, I_C=-100\text{mA}$	85		400	
	$h_{FE(2)}$	$V_{CE}=-1\text{V}, I_C=-800\text{mA}$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-800\text{mA}, I_B=-80\text{mA}$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-800\text{mA}, I_B=-80\text{mA}$			-1.2	V
Base-emitter voltage	$V_{BE(on)}$	$V_{CE}=-1\text{V}, I_C=-10\text{mA}$			-1	V
Out capacitance	$C_O$	$V_{CB}=-10\text{V}, I_E=0\text{mA}, f=1\text{MHz}$			20	pF
Transition frequency	$f_T$	$V_{CE}=-10\text{V}, I_C=-50\text{mA}, f=-30\text{MHz}$	100			MHz

### CLASSIFICATION OF $h_{FE(2)}$

Rank	B	C	D	E
Range	85-160	120-200	160-300	300-400

# DEVICE CHARACTERISTICS

SS8550

