



## TO-252 Plastic-Encapsulate Transistors

**2SB1261** TRANSISTOR (PNP)

### FEATURES

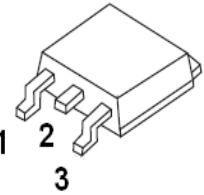
- Low  $V_{CE(sat)}$
- High DC Current Gain

TO – 252

1. BASE

2. COLLECTOR

3. EMITTER



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

Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	-60	V
$V_{CEO}$	Collector-Emitter Voltage	-60	V
$V_{EBO}$	Emitter-Base Voltage	-7	V
$I_C$	Collector Current	-3	A
$P_C$	Collector Power Dissipation	1	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	125	$^{\circ}\text{C}/\text{W}$
$T_j$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature	-55~+150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, I_B=0$	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-7			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-60\text{V}, I_E=0$			-10	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-7\text{V}, I_C=0$			-10	$\mu\text{A}$
DC current gain	$h_{FE(1)}$ *	$V_{CE}=-2\text{V}, I_C=-0.2\text{A}$	60			
	$h_{FE(2)}$ *	$V_{CE}=-2\text{V}, I_C=-0.6\text{A}$	100		400	
	$h_{FE(3)}$ *	$V_{CE}=-2\text{V}, I_C=-2\text{A}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$ *	$I_C=-1.5\text{A}, I_B=-0.15\text{A}$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$ *	$I_C=-1.5\text{A}, I_B=-0.15\text{A}$			-1.2	V
Collector output capacitance	$C_{ob}$	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$		40		pF
Transition frequency	$f_T$	$V_{CE}=-5\text{V}, I_C=-1.5\text{A}$		50		MHz

\*Pulse test: pulse width  $\leq 350\mu\text{s}$ , duty cycles  $\leq 2.0\%$ .

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

RANK	M	L	K
RANGE	100-200	160-320	200-400

# Typical Characteristics

# 2SB1261

