



TO-220 Plastic-Encapsulate Transistors

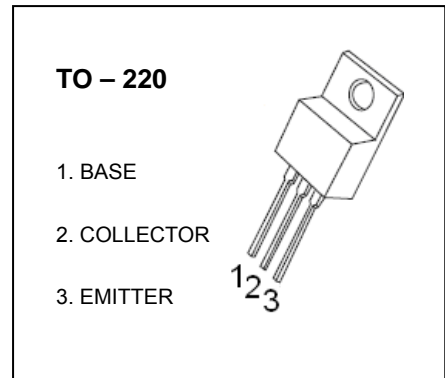
2SB1185 TRANSISTOR (PNP)

FEATURES

- Low Collector Saturation Voltage
- Complement to Type 2SD1762

APPLICATIONS

- For Use in Low Frequency Power Amplifier Applications



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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-3	A
P_C	Collector Power Dissipation	2	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	63	$^\circ\text{C}/\text{W}$
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	$V_{(BR)CBO}$	$I_C=-50\mu\text{A}, I_E=0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, I_B=0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-50\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-40\text{V}, I_E=0$			-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4\text{V}, I_C=0$			-1	μA
DC current gain	h_{FE}^*	$V_{CE}=-3\text{V}, I_C=-0.5\text{A}$	60		320	
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=-2\text{A}, I_B=-0.2\text{A}$			-1	V
Base-emitter saturation voltage	$V_{BE(sat)}^*$	$I_C=-2\text{A}, I_B=-0.2\text{A}$			-1.5	V
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$		50		pF
Transition frequency	f_T	$V_{CE}=-5\text{V}, I_C=-0.5\text{A}, f=30\text{MHz}$		70		MHz

*Pulse test

CLASSIFICATION OF h_{FE}

RANK	D	E	F
RANGE	60-120	100-200	160-320