

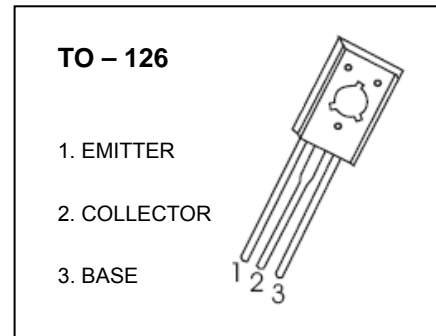


TO-126 Plastic-Encapsulate Transistors

2SB1658 TRANSISTOR (PNP)

FEATURES

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



Equivalent Circuit

B1658=Device code
 dot= Green molding compound
 device, if none, the norm.nhe

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current	-5	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	$^\circ\text{C}$

T Unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-6			V
Collector cut-off current	I_{CBO}	$V_{CB} = -30V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6V, I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -2V, I_C = -1A$	150		600	
	$h_{FE(2)}$	$V_{CE} = -2V, I_C = -4A$	50			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C = -1A, I_B = -50mA$			-0.15	V
	$V_{CE(sat)2}$	$I_C = -2A, I_B = -100mA$			-0.25	V
	$V_{CE(sat)3}$	$I_C = -4A, I_B = -200mA$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1A, I_B = -100mA$			-1.5	V
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		100		pF
Transition frequency	f_T	$V_{CE} = -10V, I_C = -50mA$		95		MHz

TO-26 Package Outline Dimensions

