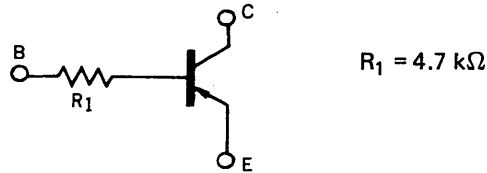


NEC

PNP SILICON TRANSISTOR BN1L3Z

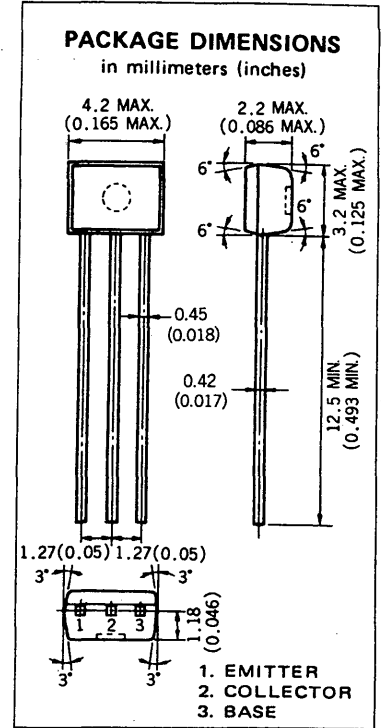
DESCRIPTION The BN1L3Z is designed for use in medium speed switching circuit.

FEATURE • Bias resistors built-in type PNP transistor equivalent circuit.



ABSOLUTE MAXIMUM RATINGS

- Maximum Temperatures
- Storage Temperature -55 to $+150$ °C
 - Junction Temperature 150 °C Maximum
- Maximum Power Dissipation ($T_a = 25$ °C)
- Total Power Dissipation 250 mW
- Maximum Voltages and Currents ($T_a = 25$ °C)
- V_{CBO} Collector to Base Voltage -60 V
 - V_{CEO} Collector to Emitter Voltage -50 V
 - V_{EBO} Emitter to Base Voltage -5.0 V
 - $I_{C(DC)}$ Collector Current (DC) -100 mA
 - $I_{C(pulse)}$ Collector Current (pulse) -200 mA



ELECTRICAL CHARACTERISTICS ($T_a = 25$ °C)

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
R_1	Input Resistance	3.29	4.7	6.11	$k\Omega$	
V_{IL}	Low Level Input Voltage		-0.57	-0.5	V	$V_{CE} = -5.0$ V, $I_C = -100$ μ A
V_{IH}	Hi Level Input Voltage	-1.2	-0.75		V	$V_{CE} = -0.2$ V, $I_C = -5.0$ mA
t_{on}	Turn On Time		0.04	0.2	μ s	$V_{CC} = -5.0$ V, $R_L = 1.0$ $k\Omega$, $V_{in} = -5.0$ V, PW = 2 μ s, Duty Cycle ≤ 2 %
t_{stg}	Storage Time		1.7	5.0	μ s	
t_{off}	Turn Off Time		1.9	6.0	μ s	
h_{FE1}	DC Current Gain	135	260	600	-	$V_{CE} = -5.0$ V, $I_C = -5.0$ mA
h_{FE2}	DC Current Gain	100	200		-	$V_{CE} = -5.0$ V, $I_C = -50$ mA
$V_{CE(sat)}$	Collector Saturation Voltage		-0.04	-0.2	V	$I_C = -5.0$ mA, $I_B = -0.25$ mA
I_{CBO}	Collector Cutoff Current			-0.1	μ A	$V_{CB} = -50$ V, $I_E = 0$

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

