

DARLINGTON TRANSISTOR  
**2SB1465**

**Phase-out/Discontinued**

PNP SILICON EPITAXIAL TRANSISTOR  
(DARLINGTON CONNECTION)

FOR LOW-FREQUENCY POWER AMPLIFIERS AND LOW-SPEED SWITCHING

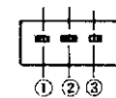
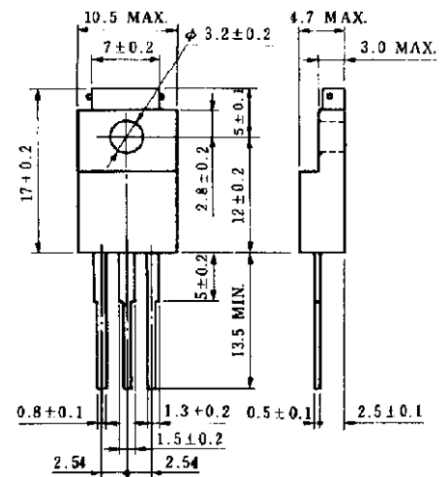
The 2SB1465 is a mold power darlington transistor developed for low-frequency power amplifier and low-speed switching. This transistor is ideal for use in a direct drive from IC output to relay drivers in switching equipment and pulse motor drivers or relay drivers in such as OA and FA equipments.

**ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25°C)**

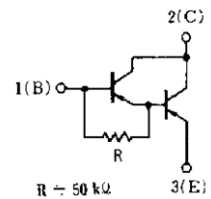
Collector to base voltage	V <sub>CB0</sub>	-300	V
Collector to emitter voltage	V <sub>CE0</sub>	-300	V
Emitter to base voltage	V <sub>EB0</sub>	-7	V
Collector current (DC)	I <sub>C(DC)</sub>	-300	mA
Collector current (pulse) <sup>Note</sup>	I <sub>C(pulse)</sub>	-600	mA
Base current	I <sub>B(DC)</sub>	-30	mA
Total power dissipation (T <sub>C</sub> = 25°C)	P <sub>T1</sub>	25	W
Total power dissipation (T <sub>A</sub> = 25°C)	P <sub>T2</sub>	2.0	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

**Note** PW ≤ 300 μs, duty cycle ≤ 10%

**PACKAGE DRAWING (UNIT: mm)**



Electrode Connection  
1. Base (B)  
2. Collector (C)  
3. Emitter (E)



The information in this document is subject to change without notice. Before using this document, please confirm that this is the latest version.  
Not all products and/or types are available in every country. Please check with an NEC Electronics sales representative for availability and additional information.

**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C)**

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Collector cutoff current	I <sub>CB0</sub>	V <sub>CB</sub> = -300 V, I <sub>E</sub> = 0			-10	μA
Collector cutoff current	I <sub>CE0</sub>	V <sub>CE</sub> = -60 V, R <sub>BE</sub> = ∞			-10	μA
Emitter cutoff current	I <sub>EB0</sub>	V <sub>EB</sub> = -5 V, I <sub>C</sub> = 0			-10	μA
DC current gain <sup>Note</sup>	h <sub>FE1</sub>	V <sub>CE</sub> = -1.5 V, I <sub>C</sub> = -20 mA	1,000			
DC current gain <sup>Note</sup>	h <sub>FE2</sub>	V <sub>CE</sub> = -1.5 V, I <sub>C</sub> = -100 mA	1,500	6,000	30,000	
Collector saturation voltage <sup>Note</sup>	V <sub>CE(sat)</sub>	I <sub>C</sub> = -100 mA, I <sub>B</sub> = -0.2 mA		-0.8	-1.5	V
Base saturation voltage <sup>Note</sup>	V <sub>BE(sat)</sub>	I <sub>C</sub> = -100 mA, I <sub>B</sub> = -0.2 mA		-1.4	-2.0	V
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = -1.5 V, I <sub>C</sub> = -20 mA		25		MHz
Collector capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10 V, I <sub>E</sub> = 0, f = 1.0 MHz		30		pF

**Note** Pulsed PW ≤ 350 μs, duty cycle ≤ 2%

**TYPICAL CHARACTERISTICS (T<sub>A</sub> = 25°C)**

