



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

2N2955

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

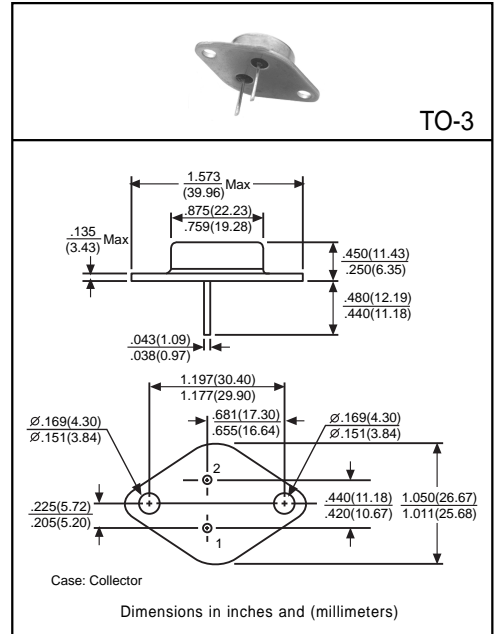
Designed for power switching circuits, series and shunt regulators, output stages and high fidelity amplifiers.

Pinning

- 1 = Base
- 2 = Emitter
- Case = Collector

Absolute Maximum Ratings (TA=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CB0</sub>	-100	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-60	V
	V <sub>CEV</sub>	-70	V
Emitter-Base Voltage	V <sub>EBO</sub>	-7	V
Collector Current	I <sub>C</sub>	-15	A
Base Current	I <sub>B</sub>	-7	A
Total Power Dissipation (T <sub>C</sub> =25°C)	P <sub>D</sub>	115	W
Junction Temperature	T <sub>J</sub>	+200	°C
Storage Temperature	T <sub>STG</sub>	-65 to +200	°C



Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Emitter Sustaining Voltage	V <sub>CEO(sus)</sub>	-60	-	-	V	I <sub>C</sub> =-0.2A, I <sub>B</sub> =0
	V <sub>CEV(sus)</sub>	-70	-	-	V	I <sub>C</sub> =-0.2A, R <sub>BE</sub> =100Ω
Collector Cutoff Current	I <sub>CEO</sub>	-	-	-0.7	mA	V <sub>CE</sub> =-30V, I <sub>B</sub> =0
	I <sub>CEX</sub>	-	-	-1	mA	V <sub>CE</sub> =-100V, V <sub>BE(off)</sub> =-1.5V
		-	-	-5	mA	V <sub>CE</sub> =-100V, V <sub>BE(off)</sub> =-1.5V, T <sub>C</sub> =150°C
Emitter Cutoff Current	I <sub>EBO</sub>	-	-	-5	mA	V <sub>BE</sub> =-7V, I <sub>C</sub> =0
Collector-Emitter Saturation Voltage <sup>(1)</sup>	V <sub>CE(sat)1</sub>	-	-	-1.1	V	I <sub>C</sub> =-4A, I <sub>B</sub> =-0.4A
	V <sub>CE(sat)2</sub>	-	-	-3	V	I <sub>C</sub> =-10A, I <sub>B</sub> =-3.3A
Base-Emitter On Voltage <sup>(1)</sup>	V <sub>BE(on)</sub>	-	-	-1.5	V	I <sub>C</sub> =-4A, V <sub>CE</sub> =-4V
DC Current Gain <sup>(1)</sup>	h <sub>FE1</sub>	20	-	70	-	I <sub>C</sub> =-4A, V <sub>CE</sub> =-4V
	h <sub>FE2</sub>	5	-	-	-	I <sub>C</sub> =-10A, V <sub>CE</sub> =-4V
Second Breakdown Collector with Base Forward Bias	I <sub>S/b</sub>	-2.87	-	-	A	V <sub>CE</sub> =-40V, t=1.0s, Non-repetitive
Current Gain - Bandwidth Product	f <sub>T</sub>	2.5	-	-	MHz	I <sub>C</sub> =-0.5A, V <sub>CE</sub> =-10V, f=1MHz
Small-Signal Current Gain	h <sub>fe</sub>	15	-	120	-	I <sub>C</sub> =-10A, V <sub>CE</sub> =-4V, f=1KHz
Small-Signal Current Gain Cutoff Frequency	f <sub>hfe</sub>	10	-	-	KHz	I <sub>C</sub> =-1A, V <sub>CE</sub> =-4V, f=1KHz

(1) Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2%