Magnatec

Certificate No. FM 36235

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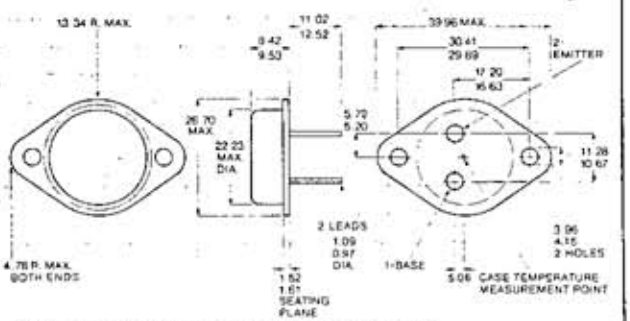
TYPES 2N6329, 2N6330, 2N6331
P-N-P SILICON POWER TRANSISTORS

FOR POWER-AMPLIFIER AND HIGH-SPEED-SWITCHING APPLICATIONS
DESIGNED FOR COMPLEMENTARY USE WITH 2N6326, 2N6327, 2N6328

- 200 W at 25°C Case Temperature
- 30-A Rated Collector Current
- 200-mJ Reverse Energy Rating
- High SOA Capability, 20 V and 10 A

*mechanical data

THE COLLECTOR IS IN ELECTRICAL CONTACT WITH THE CASE



ALL DIMENSIONS ARE IN MILLIMETRES

ALL JEDEC TO-3 DIMENSIONS AND NOTES ARE APPLICABLE

*absolute maximum ratings at 25°C case temperature (unless otherwise noted)

	2N6329	2N6330	2N6331
Collector-Base Voltage	−60 V	−80 V	−100 V
Collector-Emitter Voltage (See Note 1)	−60 V	−80 V	−100 V
Emitter-Base Voltage	−5 V	−5 V	−5 V
Continuous Collector Current	−30 A		
Peak Collector Current (See Note 2)	−40 A		
Continuous Base Current	−10 A		
Safe Operating Areas at (or below) 25°C Case Temperature	See Figures 3 and 4		
Continuous Device Dissipation at (or below) 25°C Case Temperature (See Note 3)	200 W		
Continuous Device Dissipation at 100°C Case Temperature (See Note 3)	114 W		
Continuous Device Dissipation at (or below) 25°C Free-Air Temperature (See Note 4)	5 W		
Unclamped Inductive Load Energy (See Note 5)	200 mJ		
Operating Collector Junction Temperature Range	−65°C to 200°C		
Storage Temperature Range	−65°C to 200°C		
Terminal Temperature 1.6mm from Case for 10 Seconds	250°C		

NOTES: 1. These value apply when the base-emitter diode is open-circuited.
2. This value applies for $t_w \leq 1$ ms, duty cycle ≤ 10%.
3. Derate linearly to 200°C case temperature at the rate of 1.14 W/°C or refer to Dissipation Derating Curve, Figure 5.
4. Derate linearly to 200°C free-air temperature at the rate of 28.6 mW/°C or refer to Dissipation Derating Curve, Figure 6.
5. This rating is based on the capability of the transistors to operate safely in the circuit of Figure 2. L = 20 mH, R_{BB2} = 100 Ω, V_{BB2} = 0 V, R_S = 0.1 Ω, V_{CC} = 20 V. Energy ≈ $I_C^2 L/2$.

*JEDEC registered data. This data sheet contains all applicable registered data in effect at the time of publication.