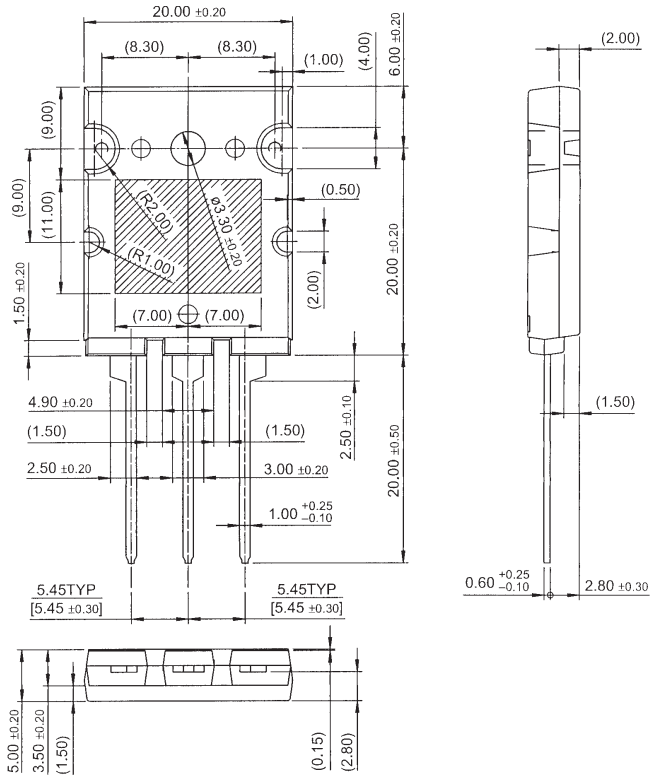
NEW PRODUCT FOR

POWER AUDIO APPLICATION

Magnatec's New Complimentary PA Range of Power Audio Devices Launch for the MILLENNIUM

PA001N

MECHANICAL DATA
Dimensions in mm



TO264

Pin 1 — Base Pin 2 — Collector Pin 3 — Emitter

SILICON NPN POWER TRANSISTOR

Complimentary to PA001P

FEATURES

- **AUDIO POWER AMPLIFIER**
- **WIDE SOA**
- **HIGH POWER DISSIPATION**
- **HIGH CURRENT - 18A**
- **GOOD LINEARITY**

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25°C unless otherwise stated)

BV_{CBO}	Collector – Base Voltage	300V
BV_{CEO}	Collector – Emitter Voltage	240V
BV_{EBO}	Collector – Base Voltage	10V
I_C	Collector Current	18A
I_C	Collector Current Pulse	30
P_{TOT}	Collector Power Dissipation	200W
T_J	Junction Temperature	150°C
T_{STG}	Storage Temperature Range	–55 to 150°C

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E-mail: magnatec@semelab.co.uk Website: http://www.semelab.co.uk

This datasheet has been downloaded from http://www.digchip.com at this page

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ELECTRICAL CHARACTERISTICS (T_{case} = 25°C unless otherwise stated)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
$V_{(BR)CEO}$	Collector – Emitter Breakdown Voltage	I_C = 5mA		240			V
V_{CBO}	Collector – Base Voltage	I_C = 1mA		300			V
V_{EBO}	Emitter – Base Voltage	I_E = 1.mA		10			V
I_{CBO}	Collector Base Leakage Current	V_{CB} = 290V				10	µA
I_{EBO}	Emitter Base Leakage Current	V_{EB} = 9V				10	
h_{FE}*	DC Current Gain	I_C = 1A	V_{CE} = 5V	60		150	—
		I_C = 8A	V_{CE} = 5V	30			
$V_{CE(SAT)}$*	Collector -Emitter Saturation Voltage	I_C = 1.0A	I_B = 0.1A			0.5	V
		I_C = 10A	I_B = 1A			2.0	
$V_{BE(SAT)}$*	Base - Enitter Saturation Voltage	I_C = 10A	I_B = 1A			2.0	V
DYNAMIC CHARACTERISTICS							
C_{ob}	Output Capacitance	V_{CB} = 10V	f=1MHz		210		MHz
f_T	Transition Frequency	I_C = 1.0A	V_{CE} = 5V		35		

* Pulse test tp =300µs,δ < 2%

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NEW PRODUCT FOR

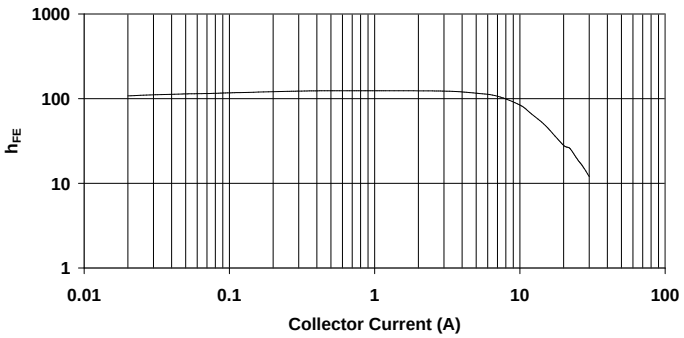
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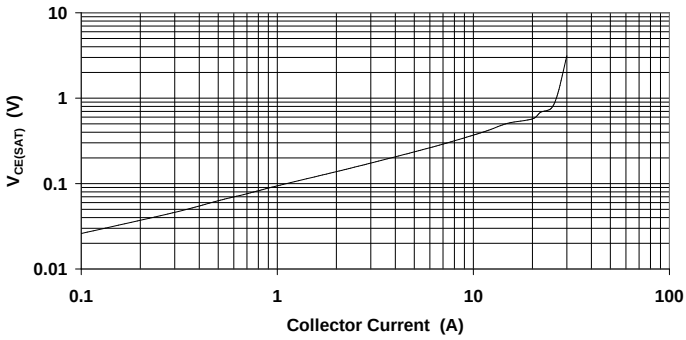
PA001N

Typical Characteristics at T_a = 25°C

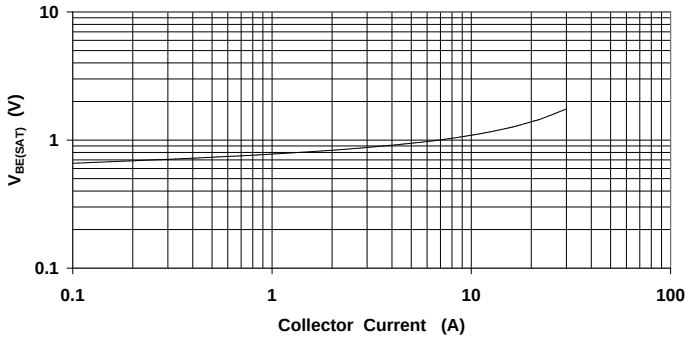
h_{FE} - I_C Characteristics
V_{CE} = 5V



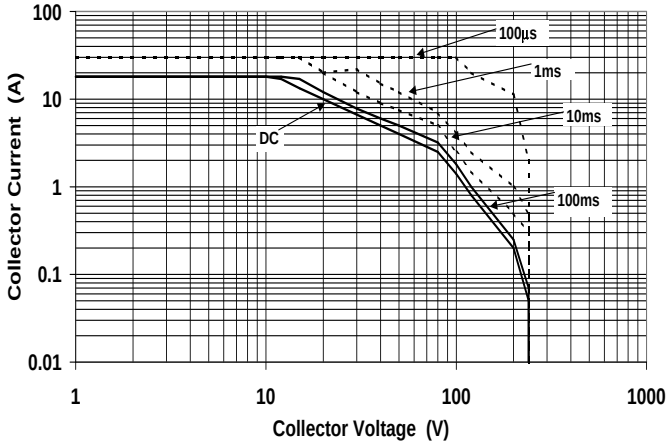
Collector - Emitter Saturation Voltage
I_C/I_B = 10



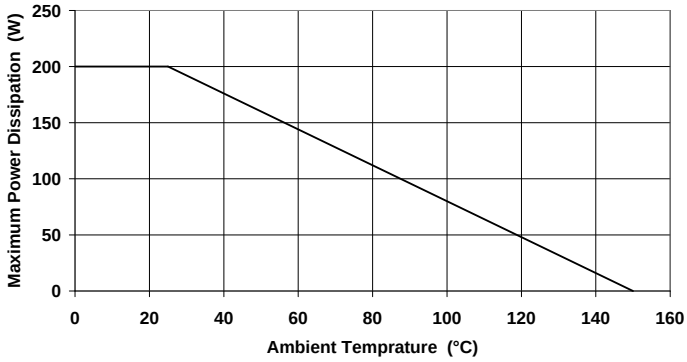
Base - Emitter Saturation Voltage
I_C/I_B = 10



Safe Operation Area



Power Derating Curve



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