To all our customers

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Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

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2SA1468

Silicon PNP Epitaxial

RENESAS

ADE-208-1018 (Z)
1st. Edition
Mar. 2001

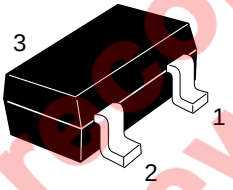
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Application

High voltage amplifier

Outline

MPAK



1. Emitter
2. Base
3. Collector

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	–180	V
Collector to emitter voltage	V_{CEO}	–180	V
Emitter to base voltage	V_{EBO}	–5	V
Collector current	I_C	–100	mA
Collector power dissipation	P_C	150	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Electrical Characteristics (Ta = 25°C)

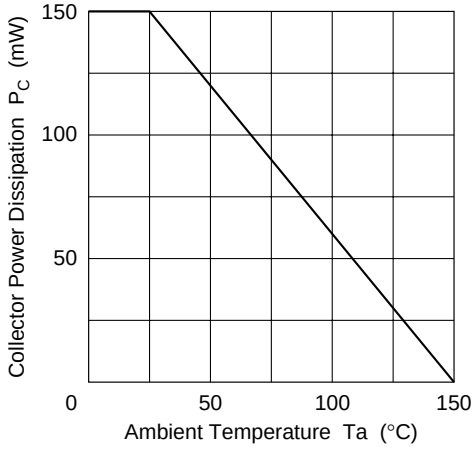
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	–180	—	—	V	I_C = –10 µA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	–180	—	—	V	I_C = –0.5 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	–5	—	—	V	I_E = –10 µA, I_C = 0
DC current transfer ratio	h_{FE}*[1]	100	—	320		V_{CE} = –12 V, I_C = –2 mA*[2]
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	–0.5	V	I_C = –30 mA, I_B = –3 mA*[2]
Base to emitter voltage	V_{BE}	—	—	–1.0	V	V_{CE} = –12 V, I_C = –2 mA
Gain bandwidth product	f_T	—	200	—	MHz	V_{CE} = –12 V, I_C = –10 mA
Collector output capacitance	Cob	—	3.5	—	pF	V_{CB} = –10 V, I_E = 0, f = 1 MHz

Notes: 1. The 2SA1468 is grouped by h_{FE} as follows.
2. Pulse test

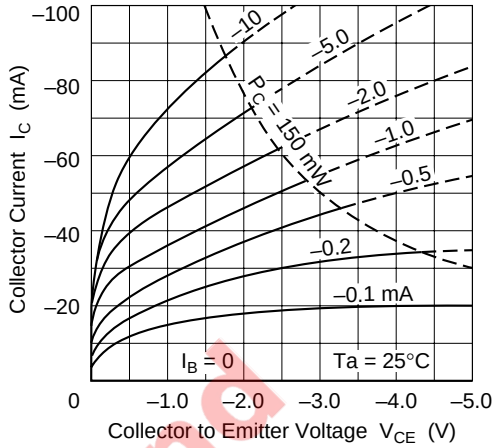
Grade	B	C
Mark	INB	INC
h_{FE}	100 to 200	160 to 320

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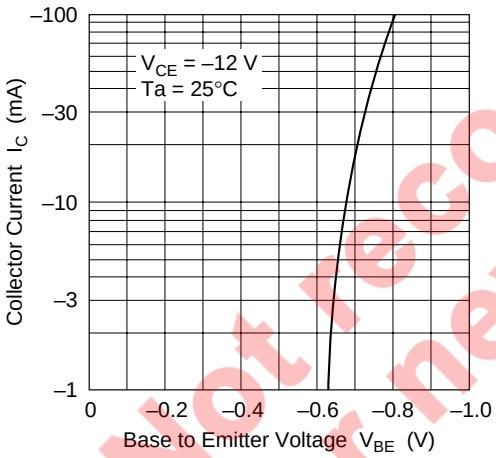
Maximum Collector Dissipation Curve



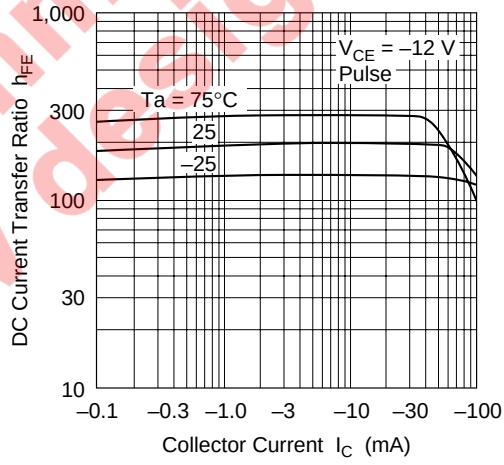
Typical Output Characteristics



Typical Transfer Characteristics

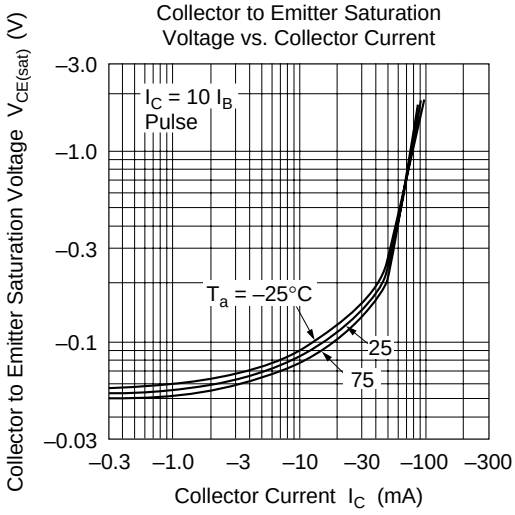


DC Current Transfer Ratio vs. Collector Current

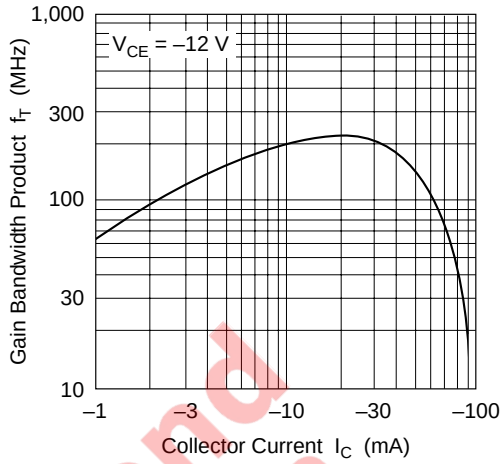


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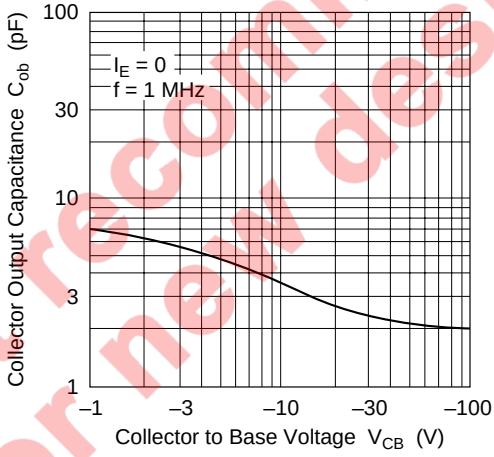
Collector to Emitter Saturation Voltage vs. Collector Current



Gain Bandwidth Product vs. Collector Current



Collector Output Capacitance vs. Collector to Base Voltage

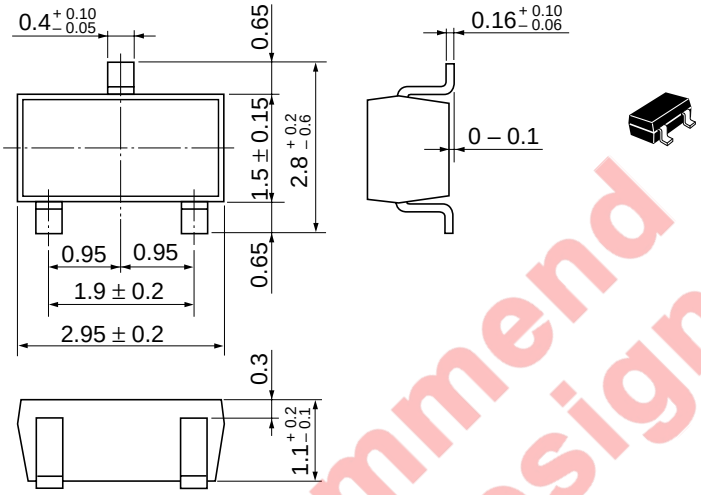


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Package Dimensions

As of January, 2001

Unit: mm



Hitachi Code	MPAK
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.011 g

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