# 2SC3380

## Silicon NPN Triple Diffused

# **HITACHI**

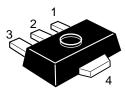
ADE-208-1082A (Z) 2nd. Edition Mar. 2001

#### **Application**

- High frequency high voltage amplifier
- High voltage switch

#### Outline

**UPAK** 



- 1. Base
- 2. Collector
- 3. Emitter
- 4. Collector (Flange)

Note: Marking is "AS".



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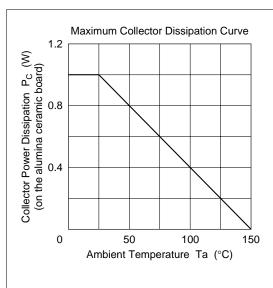
### **Absolute Maximum Ratings** ( $Ta = 25^{\circ}C$ )

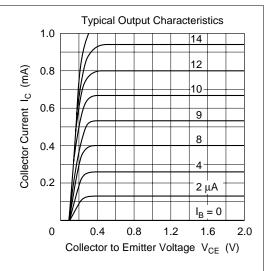
Item	Symbol	Ratings	Unit	
Collector to base voltage	$V_{\text{CBO}}$	300	V	
Collector to emitter voltage	V <sub>CEO</sub>	300	V	
Emitter to base voltage	V <sub>EBO</sub>	5	V	
Collector current	I <sub>c</sub>	100	mA	
Collector power dissipation	P <sub>C</sub> *1	1	W	
Junction temperature	Tj	150	°C	
Storage temperature	Tstg	-55 to +150	°C	

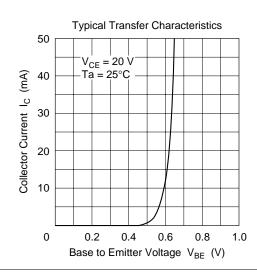
Note: 1. Value on the alumina ceramic board  $(12.5 \times 20 \times 0.7 \text{ mm})$ 

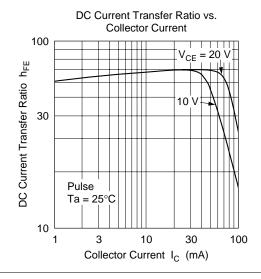
#### **Electrical Characteristics** (Ta = 25°C)

Item	Symbol	Min	Тур	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	300	_	_	V	$I_{c} = 10 \ \mu A, \ I_{E} = 0$
Collector to emitter breakdown voltage	$V_{\text{(BR)CEO}}$	300	_	_	V	$I_{C} = 1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	_	_	V	$I_{E} = 10 \mu\text{A},  I_{C} = 0$
Collector cutoff current	I <sub>CEO</sub>	_	_	1	μΑ	$V_{CE} = 250 \text{ V}, R_{BE} = \infty$
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	_	_	1.5	V	$I_C = 20 \text{ mA}, I_B = 2 \text{ mA}$
DC current transfer ratio	h <sub>FE</sub>	30	_	200		$V_{CE} = 20 \text{ V}, I_{C} = 20 \text{ mA}$
Gain bandwidth product	f⊤	_	80	_	MHz	$V_{CE} = 20 \text{ V}, I_{C} = 20 \text{ mA}$
Collector output capacitance	Cob	_	_	4	pF	$V_{CB} = 20 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$

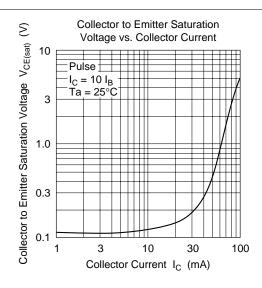


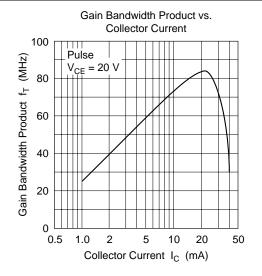


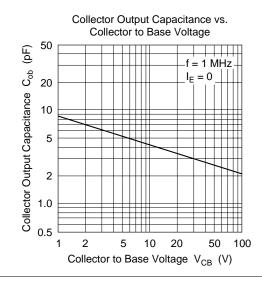




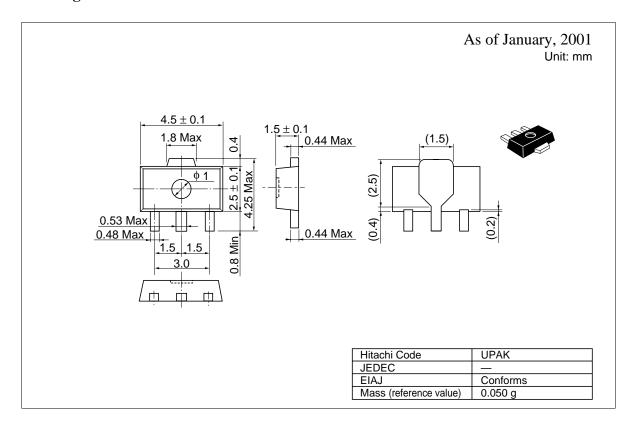
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#### **Package Dimensions**



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