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# 2SC3793

Silicon NPN Epitaxial

# HITACHI

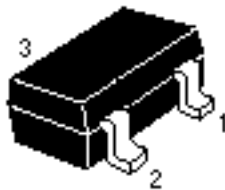
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## Application

UHF local oscillator

## Outline

MPAK



- 1. Emitter
- 2. Base
- 3. Collector

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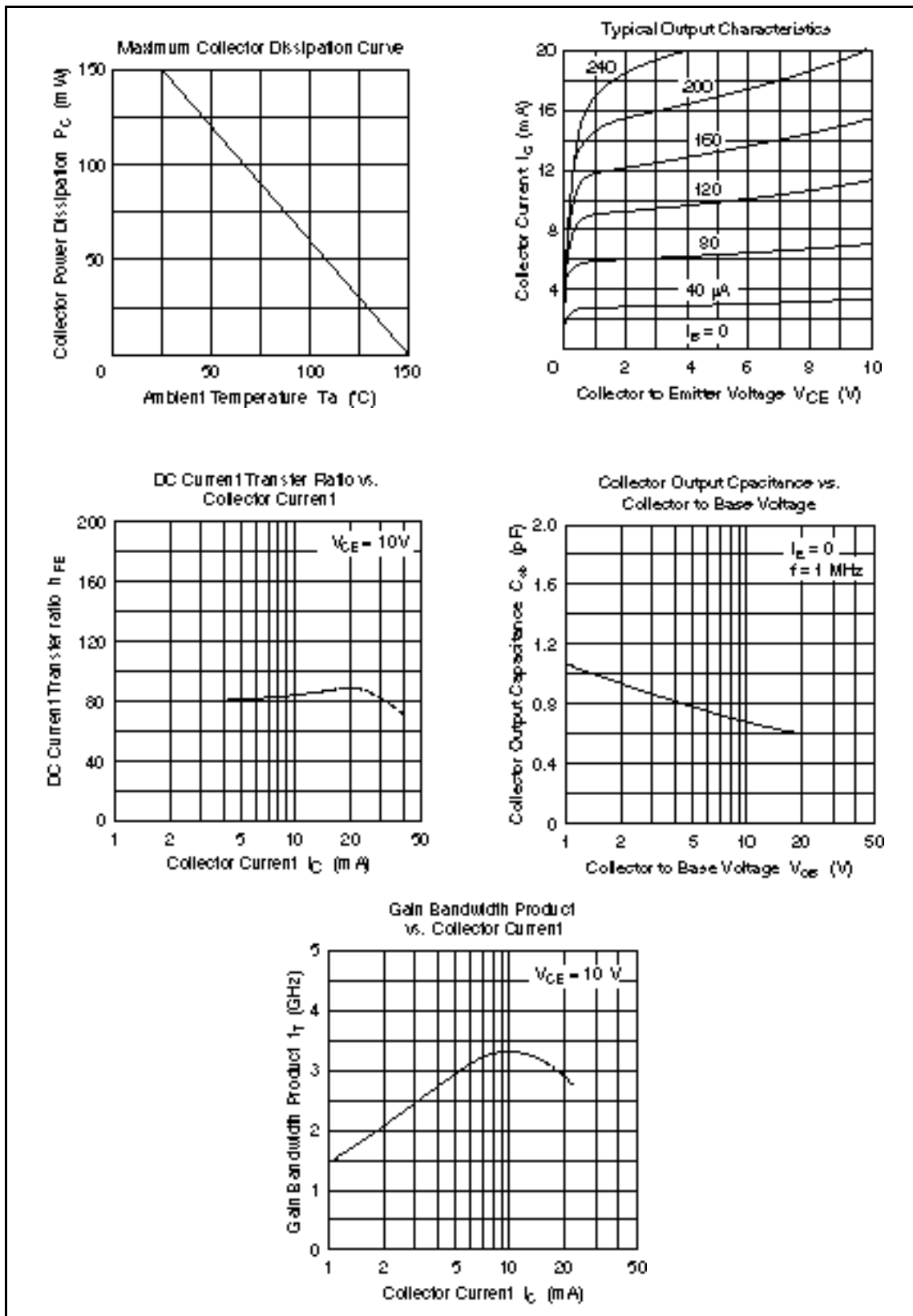
### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	20	V
Collector to emitter voltage	$V_{CEO}$	15	V
Emitter to base voltage	$V_{EBO}$	3	V
Collector current	$I_C$	50	mA
Collector power dissipation	$P_C$	150	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

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

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	20	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	15	—	—	V	$I_C = 1 \text{ mA}, R_{BE} =$
Collector cutoff current	$I_{CBO}$	—	—	1	$\mu A$	$V_{CB} = 15 \text{ V}, I_E = 0$
Emitter cutoff current	$I_{EBO}$	—	—	1	$\mu A$	$V_{EB} = 3 \text{ V}, I_C = 0$
DC current transfer ratio	$h_{FE}$	30	—	200		$V_{CE} = 10 \text{ V}, I_C = 5 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	0.5	V	$I_C = 20 \text{ mA}, I_B = 4 \text{ mA}$
Collector output capacitance	$C_{ob}$	—	0.7	1	pF	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$
Gain bandwidth product	$f_T$	—	2.9	—	GHz	$V_{CE} = 10 \text{ V}, I_C = 5 \text{ mA}$

Note: Marking is "IP-".



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# HITACHI

## Hitachi, Ltd.

Semiconductor & IC Div.

Nippon Bldg., 2-5-2, Ohite-machi, Chiyoda-ku, Tokyo 100, Japan

Tel: Tokyo (03) 3270-2111

Fax: (03) 3270-5109

For further information write to:

Hitachi America, Ltd.  
Semiconductor & IC Div.  
2000 Sierra Point Parkway  
Brisbane, CA 94005-4835  
U.S.A.  
Tel: 415-589-8000  
Fax: 415-589-4207

Hitachi Europe GmbH  
Electronic Components Group  
Continental Europe  
Dornacher Straße 3  
D-85622 Feldkirchen  
München  
Tel: 089-9 94 80-0  
Fax: 089-9 29 30 00

Hitachi Europe Ltd.  
Electronic Components Div.  
Northern Europe Headquarters  
Whitebrook Park  
Lower Cookham Road  
Maidenhead  
Berkshire SL6 8YA  
United Kingdom  
Tel: 0628-585000  
Fax: 0628-778322

Hitachi Asia Pte. Ltd.  
45 Collyer Quay #20-00  
Hitachi Tower  
Singapore 0104  
Tel: 535-2100  
Fax: 535-1533

Hitachi Asia (Hong Kong) Ltd.  
Unit 705, North Tower,  
World Finance Centre  
Harbour City, Canton Road  
Tsim Sha Tsui, Kowloon  
Hong Kong  
Tel: 27359218  
Fax: 27308074