Silicon NPN Triple Diffused

HITACHI

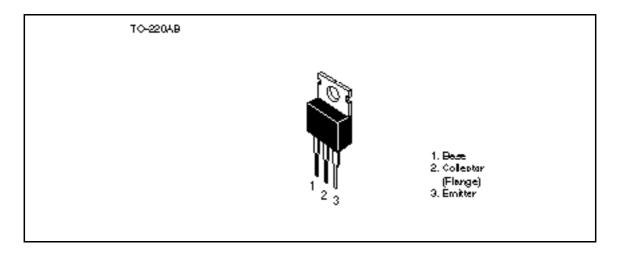
Application

High voltage amplifier

Features

• High brakedown voltage $V_{(BR)CEO} = 1300 \ V \ min \label{eq:VBR}$

Outline



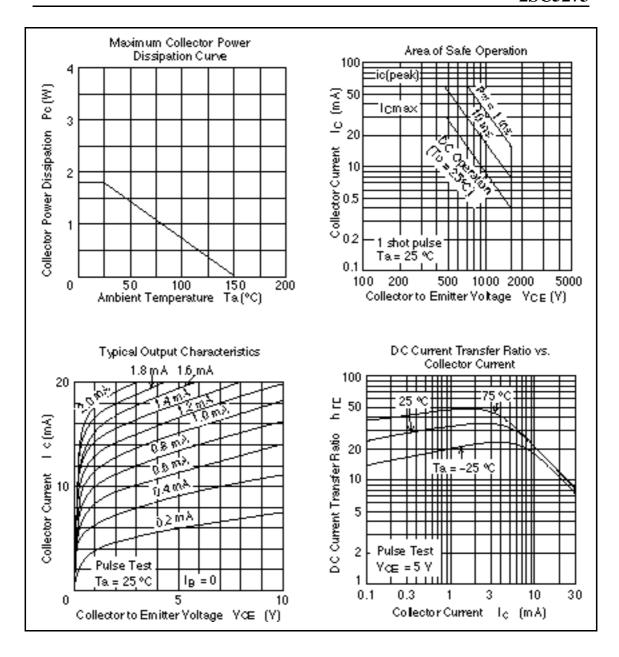


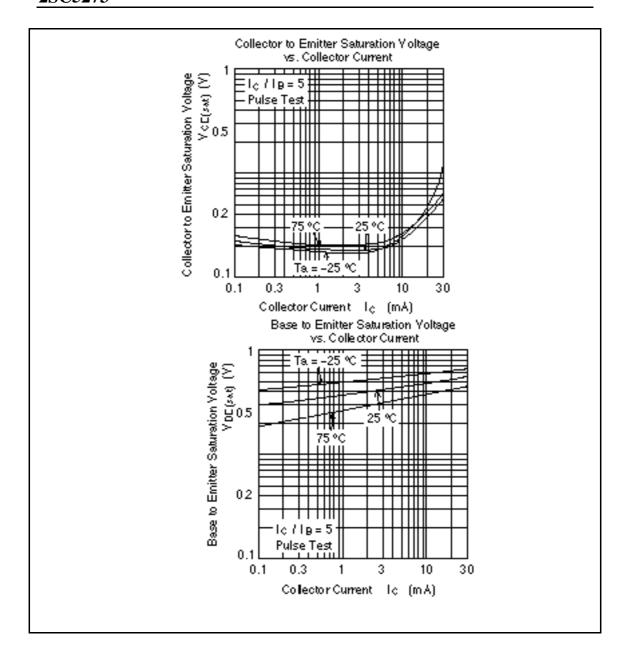
Absolute Maximum Ratings ($Ta = 25^{\circ}C$)

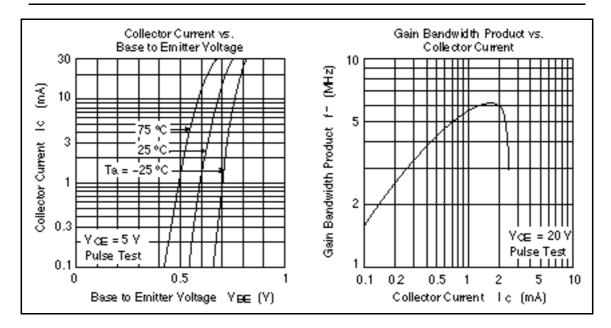
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	1300	V
Collector to emitter voltage	V _{CEO}	1300	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I _c	30	mA
Collector peak current	I _{C(peak)}	60	mA
Collector power dissipation	P _c	1.8	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

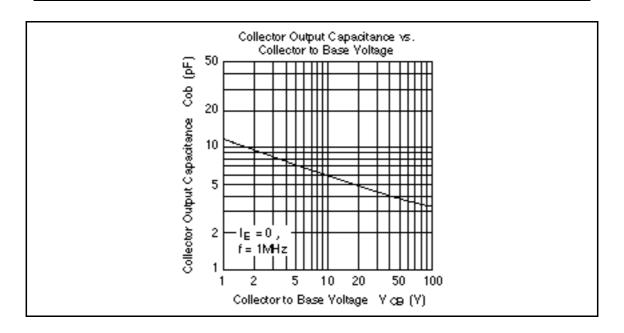
Electrical Characteristics ($Ta = 25^{\circ}C$)

Item	Symbol	Min	Тур	Max	Unit	Test conditions
Collector cutoff current	I _{CES}	_	_	10	μΑ	$V_{CE} = 1300 \text{ V}, R_{BE} = 0$
Collector cutoff current	I _{CEO}		_	100	μΑ	V _{CE} = 1300 V, R _{BE} =
Emitter cutoff current	I _{EBO}		_	10	μΑ	$V_{EB} = 6 \text{ V}, I_{C} = 0$
DC current transfer ratio	h _{FE}	10	_	_		$V_{CE} = 10 \text{ V}, I_{C} = 10 \text{ mA}$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	_	_	5.0	V	$I_C = 10 \text{ mA}, I_B = 2 \text{ mA}$
Gain bandwidth product	f _T	_	5.5	_	MHz	$V_{CE} = 20 \text{ V}, I_{C} = 1 \text{ mA}$
Collector output capacitance	Cob		3.4	_	pF	$V_{CB} = 100 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$









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