
2SC5390

Silicon NPN Epitaxial
High Frequency Amplifier

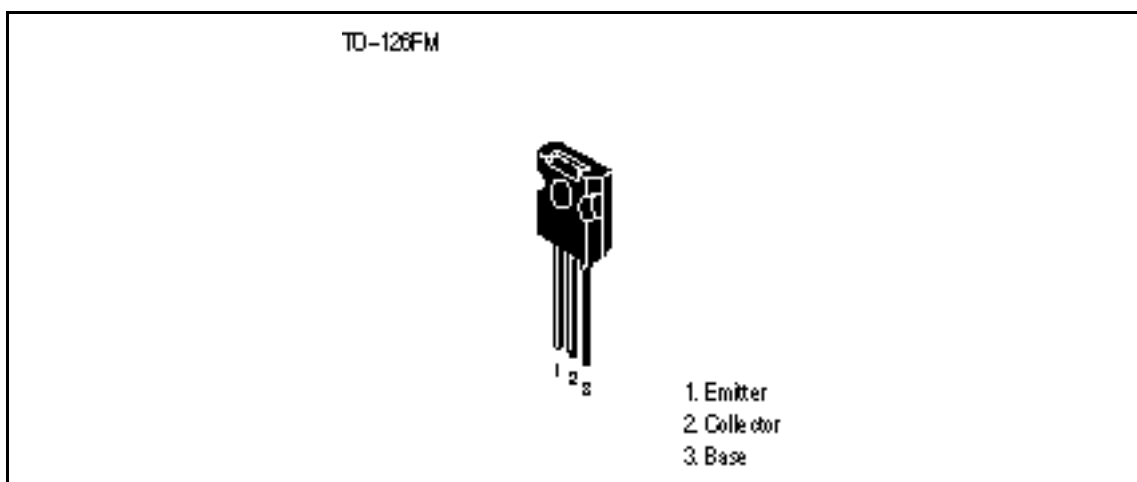
HITACHI

ADE-208-492 (Z)
1st. Edition
December, 1996

Features

- Excellent high frequency characteristics
 $f_T = 1.4\text{GHz}$ (typ.)
- Low output capacitance
 $C_{ob} = 2.4\text{ pF}$ (typ.)
- Isolated package
TO-126FM

Outline



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Absolute Maximum Ratings (Ta = 25°C)

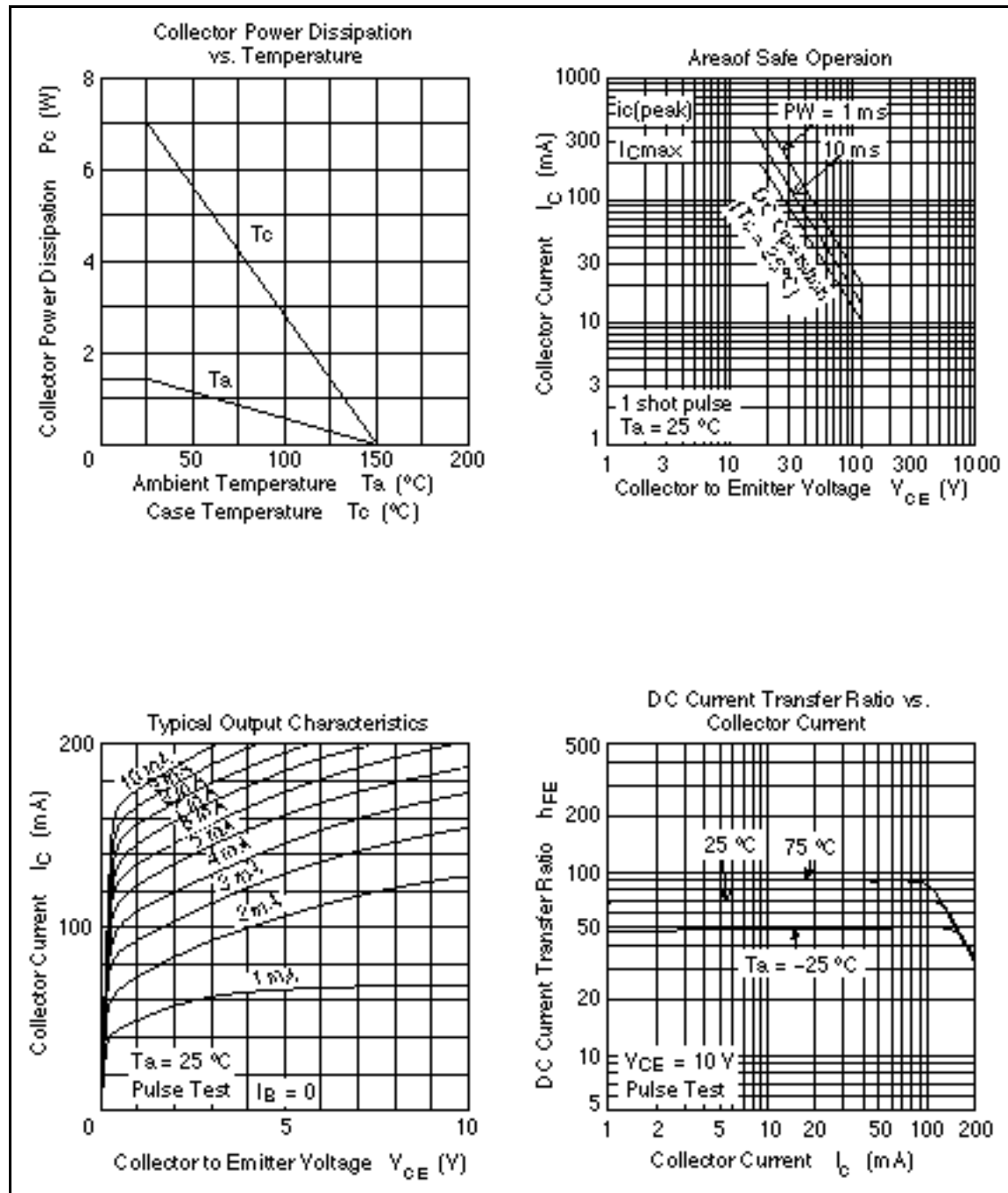
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	110	V
Collector to emitter voltage	V_{CEO}	110	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	I_C	200	mA
Collector peak current	$i_{c(peak)}$	400	mA
Collector power dissipation	P_C	1.4	W
Collector power dissipation	P_C^{*1}	7	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

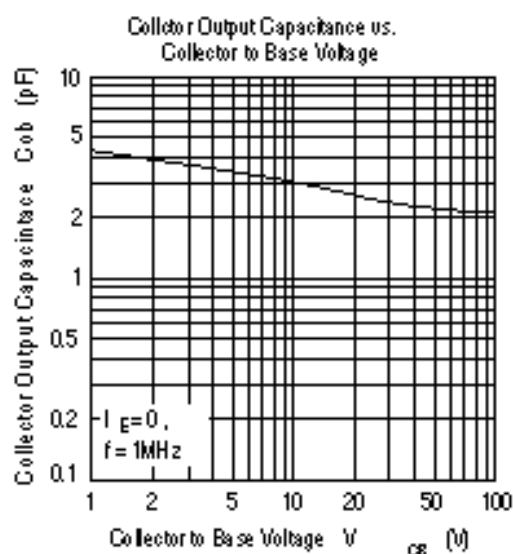
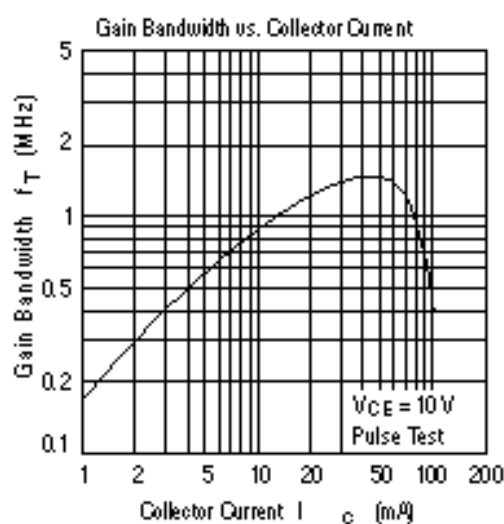
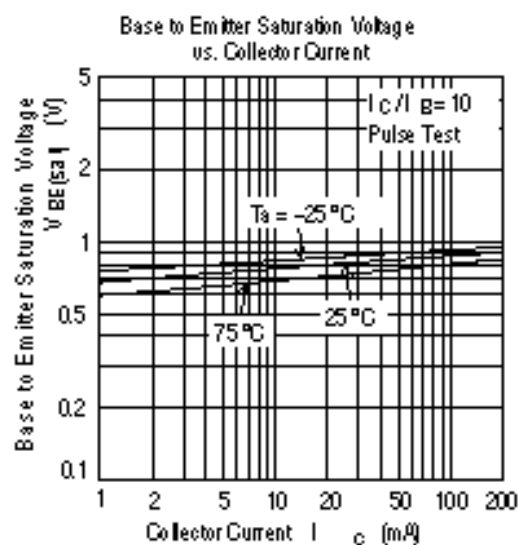
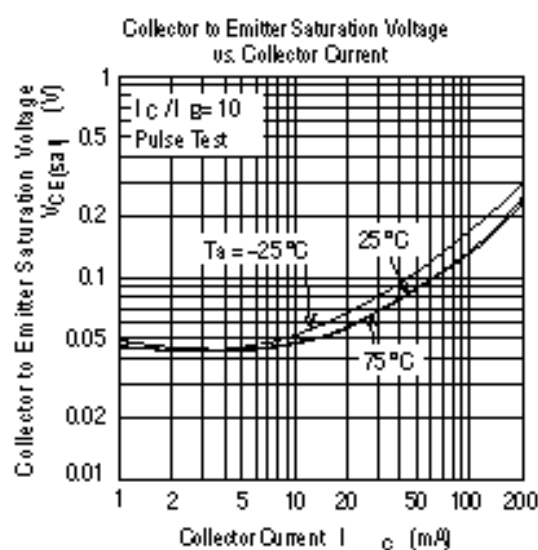
Note: 1. Value at $T_c = 25^\circ\text{C}$

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	110	—	—	V	$I_C = 10\text{E-}6\text{ A}$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	110	—	—	V	$I_C = 1\text{mA}$, $R_{BE} =$
Collector cutoff current	I_{CBO}	—	—	10	μA	$V_{CB} = 100\text{V}$, $I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	10	μA	$V_{EB} = 3\text{V}$, $I_C = 0$
DC current transfer ratio	h_{FE}	30	—	100		$V_{CE} = 10\text{ V}$, $I_C = 10\text{mA}$
Base to emitter voltage	V_{BE}	—	—	1	V	$V_{CE} = 10\text{ V}$, $I_C = 10\text{mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1	V	$I_C = 200\text{mA}$, $I_B = 20\text{mA}$
Gain bandwidth product	f_T	1.0	1.4	—	GHz	$V_{CE} = 10\text{ V}$, $I_C = 50\text{mA}$
Collector Output capacitance	C_{ob}	—	2.4	3.5	pF	$V_{CB} = 30\text{V}$, $I_E = 0$ $f = 1\text{MHz}$

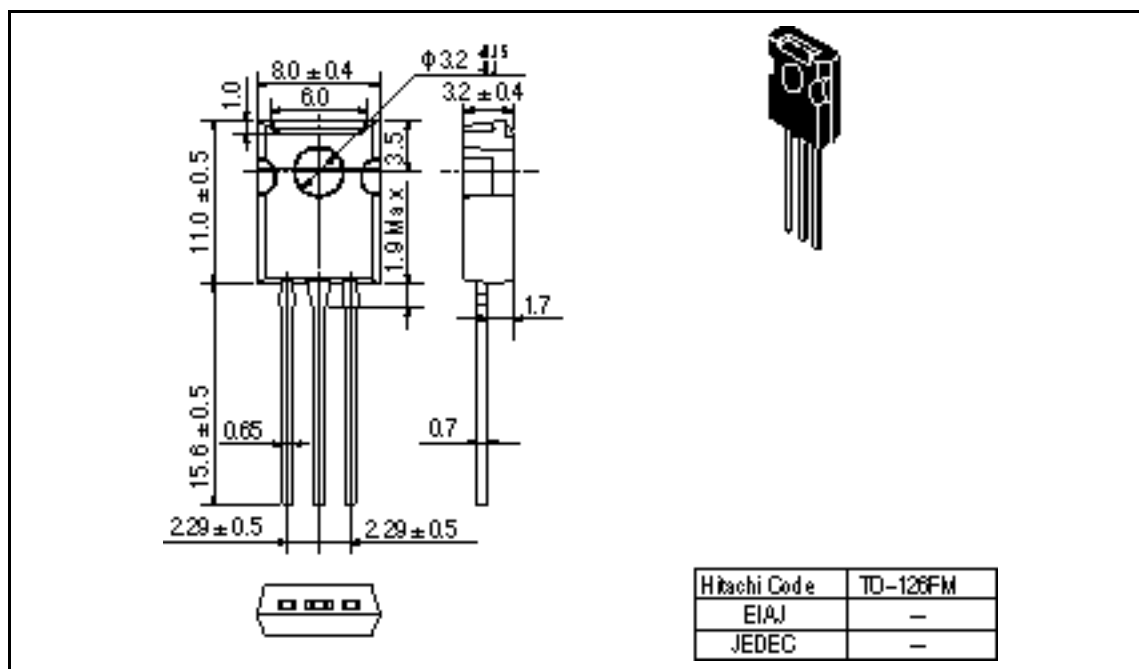
Main Characteristics





Package Dimentions

Unit: mm



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