### Silicon NPN Triple Diffused Character Display Horizntal Deflection Output

# HITACHI

ADE-208-577 B (Z) 3rd. Edition September 1997

#### **Features**

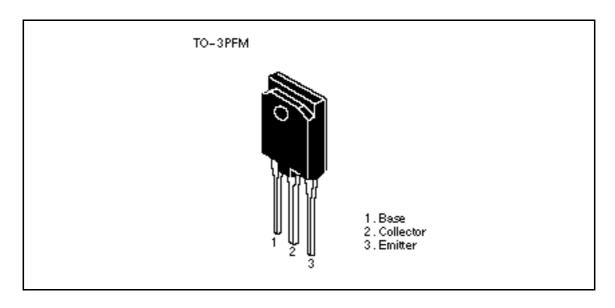
• High breakdown voltage

 $V_{\rm CBO} = 1500~V$ 

• High speed switching  $t_f = 0.15 \; \mu sec \; (typ.) \; at \; f_H = 64 \; kHz$ 

 Isolated package TO–3PFM

#### **Outline**





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

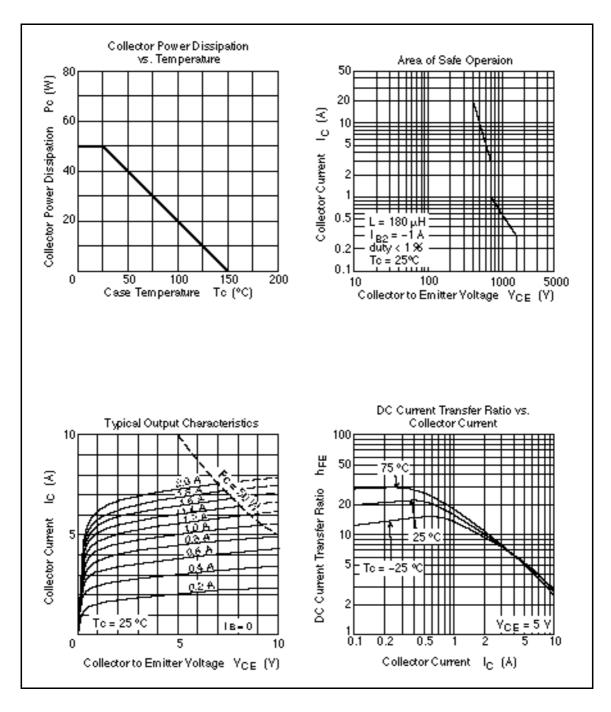
Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	1500	V
Collector to emitter voltage	V <sub>CEO</sub>	700	V
Emitter to base voltage	$V_{EBO}$	6	V
Collector current	I <sub>c</sub>	10	A
Collector peak current	İ <sub>c(peak)</sub>	20	A
Collector power dissipation	P <sub>C</sub> <sup>Note1</sup>	50	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

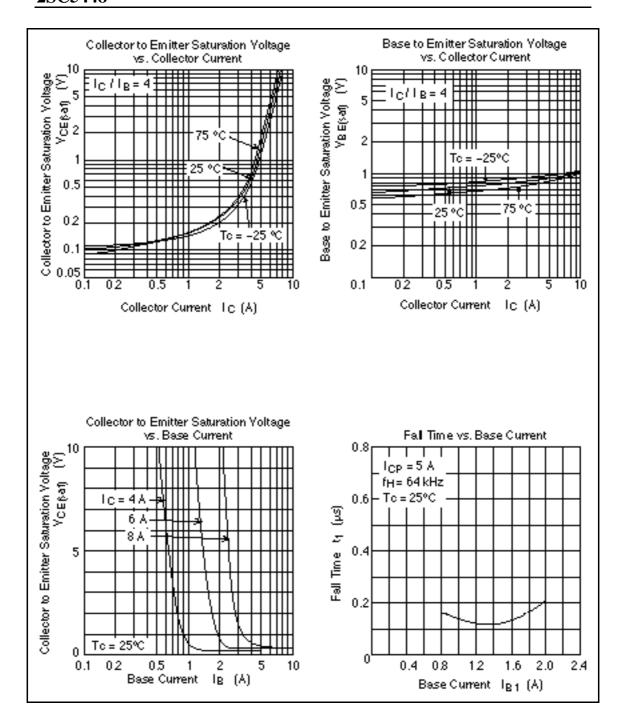
Note: 1. Value at Tc = 25°C

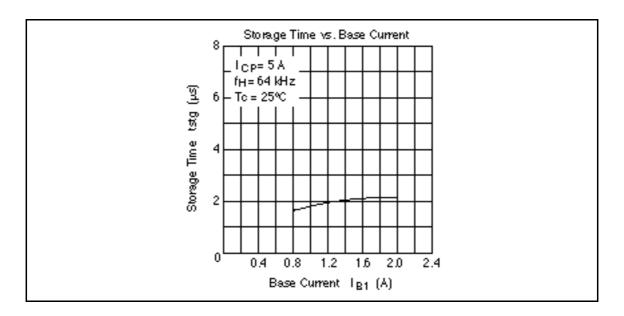
### **Electrical Characteristics** ( $Ta = 25^{\circ}C$ )

Item	Symbol	Min	Тур	Max	Unit	<b>Test Conditions</b>
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	700	_	_	V	$I_{\rm C}$ = 10mA, $R_{\rm BE}$ =
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	_	_	V	$I_{\rm E} = 10  {\rm mA}, \ I_{\rm C} = 0$
Collector cutoff current	I <sub>CES</sub>	_	_	500	μΑ	$V_{CE} = 1500V, R_{BE} = 0$
DC current transfer ratio	h <sub>FE1</sub>	10	_	30		$V_{CE} = 5 \text{ V}, I_{C} = 1 \text{A}$
DC current transfer ratio	h <sub>FE2</sub>	3.5	_	6.5		$V_{CE} = 5 \text{ V}, I_{C} = 6 \text{A}$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	_	_	5	V	$I_{\rm C} = 6A, I_{\rm B} = 1.6A$
Base to emitter saturation voltage	$V_{BE(sat)}$	_	_	1.5	V	$I_{\rm C} = 6A, I_{\rm B} = 1.6A$
Fall time	t <sub>f</sub>	_	0.2	0.4	μs	$I_{CP} = 5A, I_{B1} = 1.6A$ $f_{H} = 31.5kHz$
Fall time	t <sub>f</sub>	_	0.15	_	μs	$I_{CP} = 5A, I_{B1} = 1.3A$ $f_{H} = 64kHz$

#### **Main Characteristics**

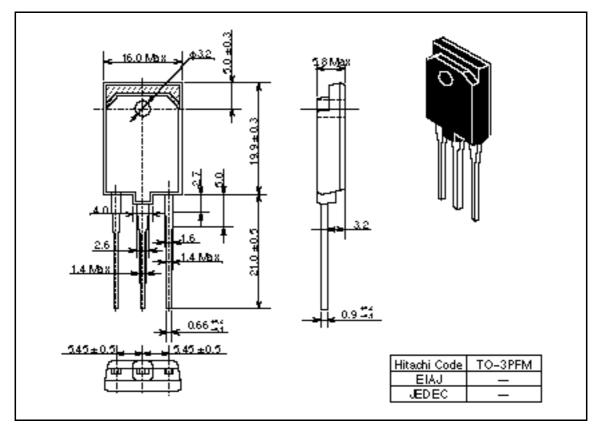






### **Package Dimensions**

Unit: mm



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