Silicon NPN Triple Diffused Character Display Horizontal Deflection Output

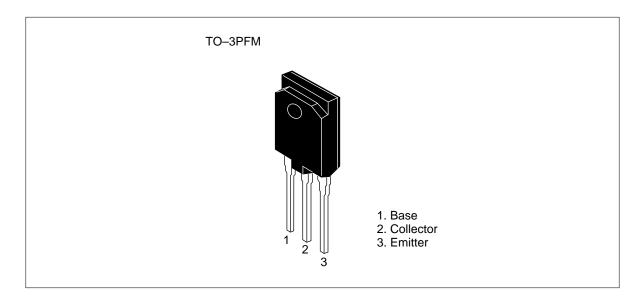
HITACHI

ADE-208-672 (Z) 1st. Edition Oct. 1, 1998

Features

- High breakdown voltage
 - $V_{\text{CBO}} = 1500 \ V$
- High speed switching tf = 0.15 μsec(typ.) at fH=64kHz

Outline



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

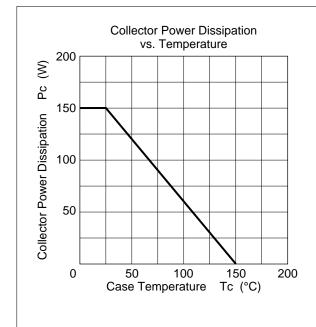
Item	Symbol	Ratings	Unit	
Collector to base voltage	V_{CBO}	1500	V	
Collector to emitter voltage	V _{CEO}	700	V	
Emitter to base voltage	V_{EBO}	6	V	
Collector current	I _c	20	Α	
Collector peak current	i _{c(peak)}	40	Α	
Collector power dissipation	P _C ^{Note1}	150	W	
Junction temperature	Tj	150	°C	
Storage temperature	Tstg	-55 to +150	°C	

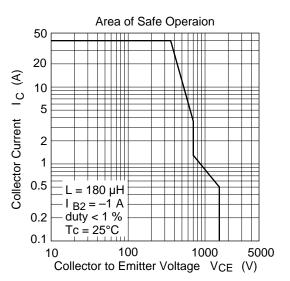
Note: 1. Value at Tc = 25°C

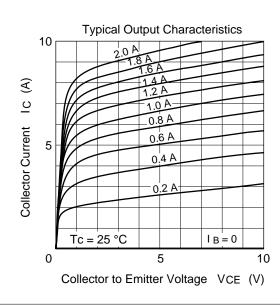
Electrical Characteristics (Ta = 25°C)

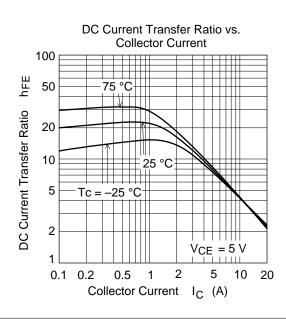
Item	Symbol	Min	Тур	Max	Unit	Test Conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	700			V	I _C = 10mA, R _{BE} = •
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	_	_	V	$I_{E} = 10 \text{mA}, I_{C} = 0$
Collector cutoff current	I _{CES}	_	_	500	μΑ	$V_{CE} = 1500V, R_{BE} = 0$
DC current transfer ratio	h _{FE1}	10		40		$V_{CE} = 5 \text{ V}, I_{C} = 1 \text{A}$
DC current transfer ratio	h _{FE2}	3.5	_	6.5		$V_{CE} = 5 \text{ V}, I_{C} = 10 \text{A}$
Collector to emitter saturation voltage	V _{CE(sat)}	_	_	5	V	I _C = 12A, I _B = 4A
Base to emitter saturation voltage	V _{BE(sat)}	_	_	1.5	V	$I_{\rm C} = 12A, I_{\rm B} = 4A$
Fall time	t _f	_	0.2	0.4	μs	$I_{CP} = 8A, I_{B1} = 3A$ $f_{H} = 31.5kHz$
Fall time	t _f	_	0.15	_	μs	$I_{CP} = 8A, I_{B1} = 2A$ $f_{H} = 64kHz$

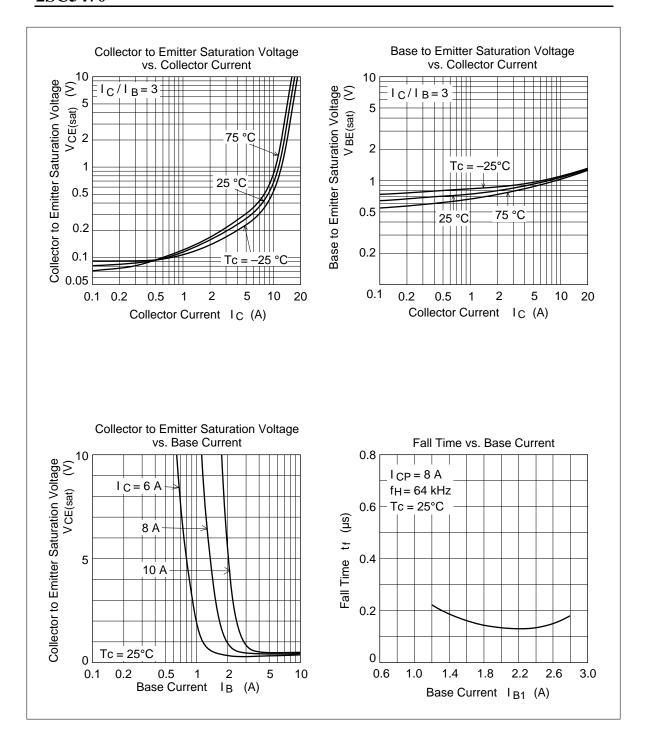
Main Characteristics

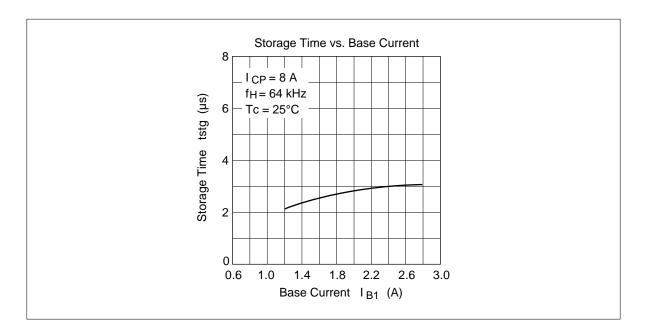




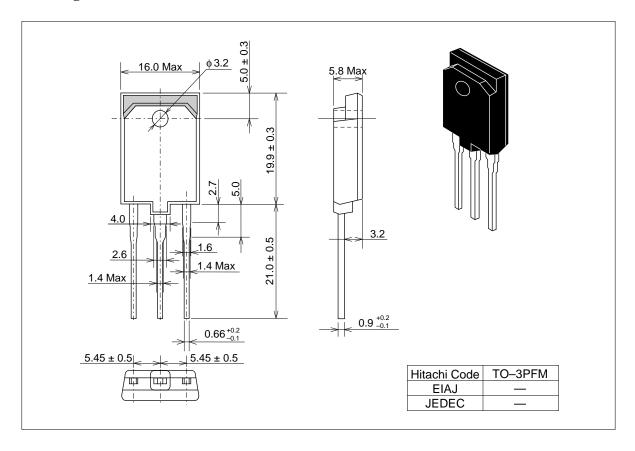








Package Dimensions (Unit: mm)



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