

Silicon NPN Power Transistors

BUH715AF

DESCRIPTION

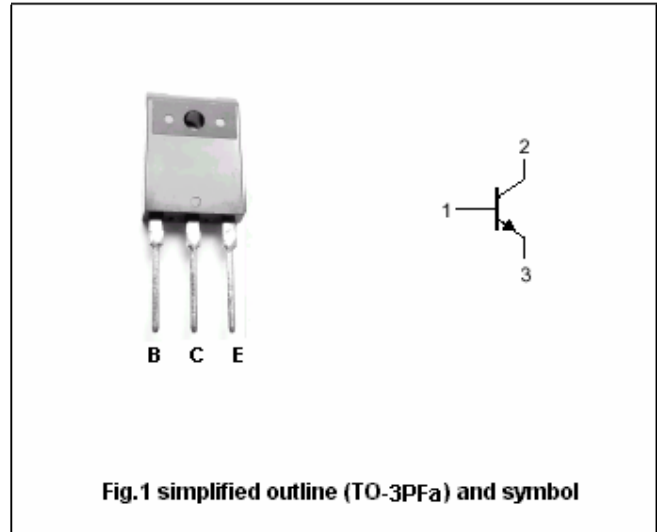
- With TO-3PFa package
- High voltage, high speed

APPLICATIONS

- Horizontal deflection for monitors.
- Switching mode power supplies

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings($T_a=25$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1500	V
V_{CEO}	Collector-emitter voltage	Open base	700	V
V_{EBO}	Emitter-base voltage	Open collector	10	V
I_C	Collector current (DC)		10	A
I_{CM}	Collector current (Pulse)		20	A
I_B	Base current (DC)		5	A
I_{BM}	Base current (Pulse)		10	A
P_{tot}	Total power dissipation	$T_C=25$	57	W
T_j	Operating junction temperature		150	
T_{stg}	Storage temperature		-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	2.2	/W

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =100mA ; I _B =0	700			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10mA ; I _C =0	10			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =7A ; I _B =1.5A			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =7A ; I _B =1.5A			1.3	V
I _{CES}	Collector cut-off current	V _{CE} =1500V ; V _{BE} =0 T _j =125			1 2	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V ; I _C =0			100	μA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	10			
h _{FE-2}	DC current gain	I _C =7A ; V _{CE} =5V	8		16	
Switching times						
t _s	Storage time	I _C =7A ; I _{B1} =1.5A ; I _{B2} =3.5A ; V _{CC} =400V		2.1	3.1	μs
t _f	Fall time			140	210	ns

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PACKAGE OUTLINE

