

NPN Silicon Power Transistor

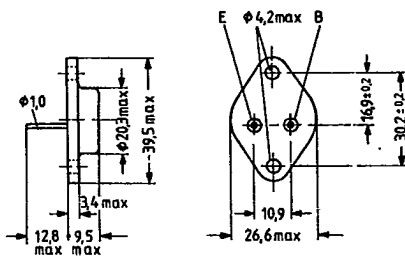
BU 626 A

SIEMENS AKTIENGESELLSCHAFT

D T-33-13

BU 626 A is a triple diffused silicon NPN power switching transistor in TO 3 case (3 B 2 DIN 41872). It is outstanding for short switching times and high dielectric strength and is particularly suitable for use in power supply units of TV receivers. The collector is electrically connected to the case.

Type	Ordering code
BU 626 A	Q68000-A4984



Approx. weight 18 g

Dimensions in mm

Maximum ratings

Collector-base voltage	V_{CBS}	1000	V
Collector-emitter voltage	V_{CEO}	400	V
Emitter-base voltage	V_{EBO}	7	V
Collector current	I_C	10	A
Collector-peak current	I_{CM}	15	A
Junction temperature	T_j	175	°C
Storage temperature range	T_{stg}	-65 to +175	°C
Total power dissipation ($T_{case} \leq 25^\circ C$; $V_{CE} = 20 V$)	P_{tot}	100	W

Thermal resistance

Junction to case	R_{thJC}	≤ 1.5	K/W
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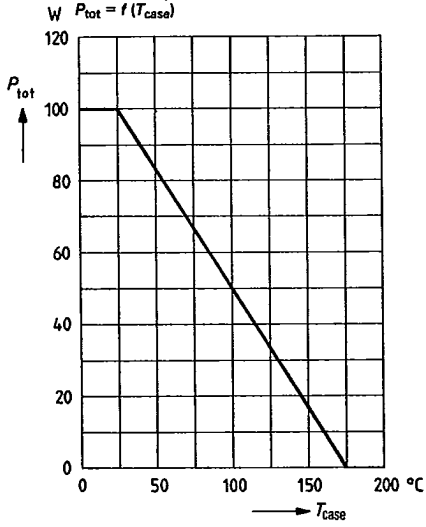
Static characteristics ($T_{\text{case}} = 25^\circ\text{C}$)

Collector-emitter breakdown voltage ($I_{\text{CEO}} = 50 \text{ mA}$; pulse load = $200 \mu\text{s}$)	$V_{(\text{BR})\text{CEO}}$	> 400	V
Emitter-base-breakdown voltage ($I_{\text{EBO}} = 10 \text{ mA}$)	$V_{(\text{BR})\text{EBO}}$	> 7	V
Collector cutoff current ($V_{\text{CE}} = 1000 \text{ V}$)	$-I_{\text{CES}}$	< 1	mA
Base-emitter saturation voltage ($I_{\text{C}} = 8 \text{ A}$; $I_{\text{B}} = 2.5 \text{ A}$)	V_{BEsat}	< 2.2	V
Collector-emitter saturation voltage ($I_{\text{C}} = 8 \text{ A}$; $I_{\text{B}} = 2.5 \text{ A}$)	V_{CEsat}	< 3.3	V
DC current gain ($I_{\text{C}} = 10 \text{ A}$; $V_{\text{CE}} = 1.5 \text{ V}$)	h_{FE}	> 10	-
($I_{\text{C}} = 2.5 \text{ A}$; $V_{\text{CE}} = 10 \text{ V}$)	h_{FE}	> 15	-

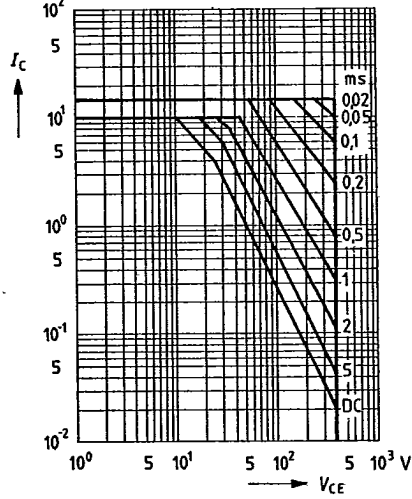
Dynamic characteristics ($T_{\text{case}} = 25^\circ\text{C}$)

Transition frequency ($I_{\text{C}} = 0.1 \text{ A}$; $V_{\text{CE}} = 10 \text{ V}$)	f_{T}	6	MHz
Switching time: Fall time ($I_{\text{C}} = 8 \text{ A}$; $I_{\text{B1}} = -I_{\text{B2}} = 2.5 \text{ A}$)	t_{f}	< 1	μs

Total perm. power dissipation versus temperature



Permissible operating range
 $I_C = f(V_{CE}); T_{case} = 25^\circ\text{C};$
 for individual pulse ($v = 0$)



DC current gain $h_{FE} = f(I_C)$
 $V_{CE} = 5\text{ V}; T_{case} = 25^\circ\text{C}$

