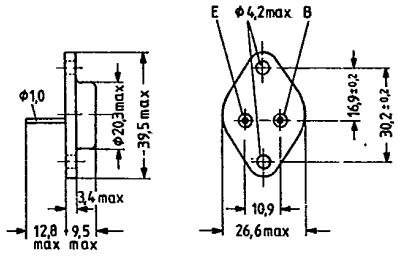
NPN Silicon Power Transistor — BU 326 A

SIEMENS AKTIENGESELLSCHAF

BU 326 A is a triple diffused silicon NPN power switching transistor in TO 3 case (3 B 2 DIN 41 872). 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 326 A	Q62702-U268



Approx. weight 18 g — Dimensions in mm

Maximum ratings

Collector-emitter voltage	V_{CES}	900	V
Collector-emitter voltage	V_{CEO}	400	V
Emitter-base voltage	V_{EBO}	7	V
Collector current	I_C	6	A
Collector peak current ($t_p \leq 1$ ms)	I_{CM}	8	A
Base current	I_B	2	A
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	−65 to +150	°C
Total power dissipation ($T_{case} \leq 50$ °C; $V_{CE} = 18$ V)	P_{tot}	50	W

Thermal resistance

Junction to case	R_{thJC}	≤ 2	K/W

Static characteristics (T_{case} = 25 °C)

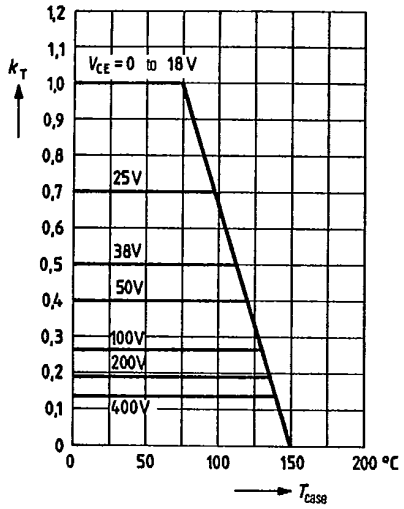
Collector-emitter breakdown voltage (I_{CEO} = 100 mA; pulse load t_p = 200 µs)	$V_{(BR)CEO}$	>400	V
Emitter-base breakdown voltage (I_{EBO} = 5 mA)	$V_{(BR)EBO}$	>7	V
Collector cutoff current (V_{CES} = 900 V)	I_{CES}	<1	mA
Base-emitter saturation voltage (I_C = 4 A; V_{CE} = 5 V)	V_{BEsat}	<1.5	V
DC current gain (I_C = 4 A; V_{CE} = 5 V)	h_{FE}	3.5 to 12	–

Dynamic characteristics (T_{case} = 25 °C)

Transition frequency (I_C = 0.2 A; V_{CE} = 10 V)	f_T	6	MHz
Switching time: Fall time: (I_C = 3 A; I_{B1} = I_{B2} = 1 A; V_{CE} = 250 V)	t_f	<0.5	µs

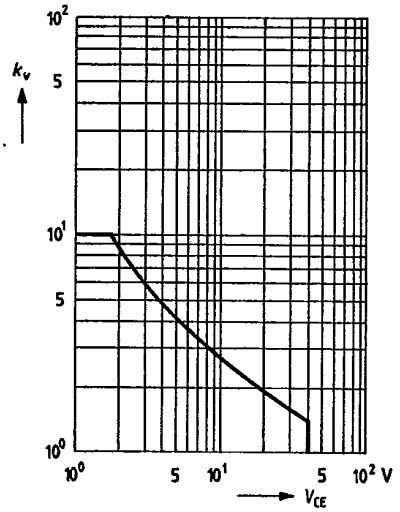
Total perm. power dissipation versus temperature

$k_T = \frac{P_{tot}(T_{case})}{P_{tot\ max}} = f(T_{case})$

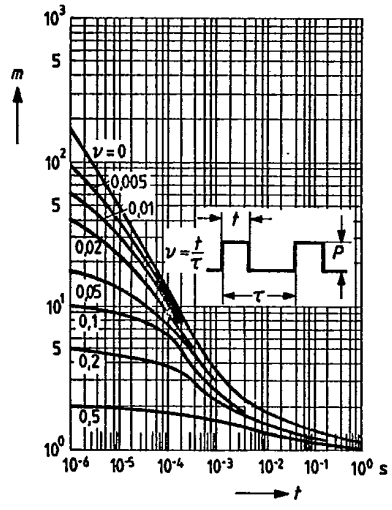


Total perm. power dissipation versus voltage

$k_v = \frac{P_{tot\ (v)}}{P_{tot\ max}} = f(V_{CE})$



Permissible pulse load
$m = f(t)$; v = parameter



Permissible operating range
$I_C = f(V_{CE})$; v = 0; T_{case} = 75 °C