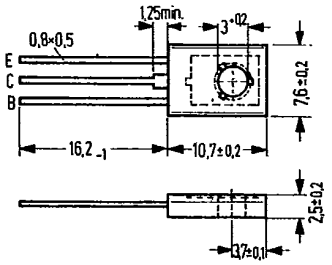
PNP Silicon Planar Transistors

BD 287
BD 288

BD 287 and BD 288 are epitaxial planar transistors in TO 126 plastic package (12 A 3 DIN 41869, sheet 4). The collector is electrically connected to the metallic mounting area. The transistors are particularly designed for switching applications in flash devices.

Type	Ordering code
BD 287	Q62702-D900
BD 288	Q62702-D901
Spring washer A3 DIN 137	Q62902-B63
Mica washer	Q62902-B62



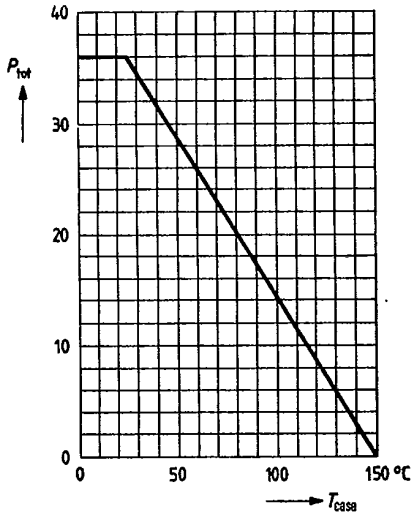
Approx. weight 0.5 g Dimensions in mm

Transistor fixing with M3 screw. Starting torque max. 0.8 Nm. Washer or spring washer should be used.

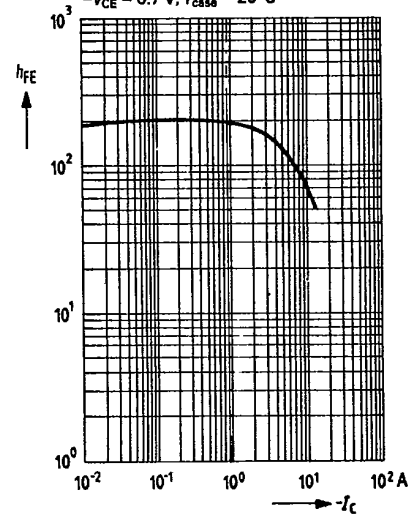
Maximum ratings (T_{amb} = 25 °C)		BD 287	BD 288	
Collector-emitter voltage	$-V_{CEO}$	25	45	V
Collector-emitter voltage	$-V_{CES}$	30	45	V
Collector-base voltage	$-V_{CBO}$	30	45	V
Emitter-base voltage	$-V_{EBO}$	5	5	V
Collector current	$-I_C$	12	12	A
Collector peak current ($t \leq 10$ ms)	$-I_{CM}$	15	15	A
Emitter peak current	I_{EM}	15	15	A
Base current	$-I_B$	2	2	A
Base peak current	$-I_{BM}$	5	5	A
Junction temperature	T_j	150	150	°C
Storage temperature range	T_{stg}	−50 to +150		°C
Total power dissipation (T_{case} = 25 °C)	P_{tot}	36	36	W
Thermal resistance				
Junction to ambient air	R_{thJA}	≤100	≤100	K/W
Junction to mounting area	R_{thJC}	≤3,5	≤3,5	K/W

Static characteristics (T_{amb} = 25 °C)		BD 287	BD 288	
Collector cutoff current ($-V_{CE}$ = 30 V)	$-I_{CES}$	≤1	≤1	µA
Collector cutoff current ($-V_{CE}$ = 30 V; T_{amb} = 125 °C)	$-I_{CES}$	≤100	≤100	µA
DC current gain ($-I_C$ = 12 A; $-V_{CE}$ = 0.7 V)	h_{FE}	≥25	≥25	–
DC current gain ($-I_C$ = 0.1 A; $-V_{CE}$ = 0.7 V)	h_{FE}	200	200	–
Base-emitter forward voltage ($-I_C$ = 12 A; $-V_{CE}$ = 0.7 V)	$-V_{BE}$	<1.7	<1.7	V
Base-emitter forward voltage ($-I_C$ = 0.1 A; $-V_{CE}$ = 0.7 V)	$-V_{BE}$	<0.8	<0.8	V
Dynamic characteristics (T_{amb} = 25 °C)				
Transition frequency ($-V_{CE}$ = 10 V; $-I_C$ = 0.2 A)	f_T	≥50	≥50	MHz
Collector-base capacitance ($-V_{CB}$ = 10 V)	C_{CB}	130	130	pF
Switching times ($-I_C$ = 2 A; I_{B1} approx. I_{B2} approx. 0.2 A)	t_{on}	<0.5	<0.5	µs
	t_{off}	<2	<2	µs

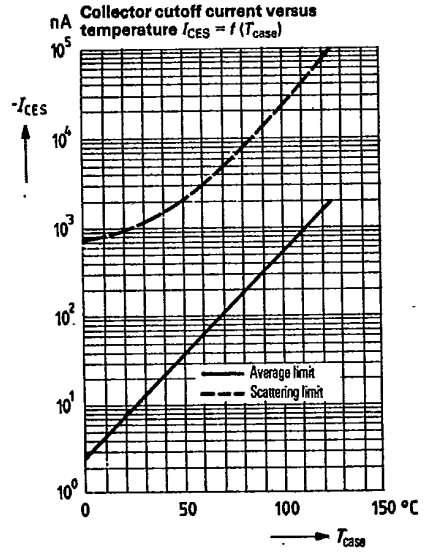
Total perm. power dissipation versus temperature
$P_{tot} = f(T_{case})$



DC current gain $h_{FE} = f(I_C)$
$-V_{CE} = 0.7$ V; $T_{case} = 25$ °C



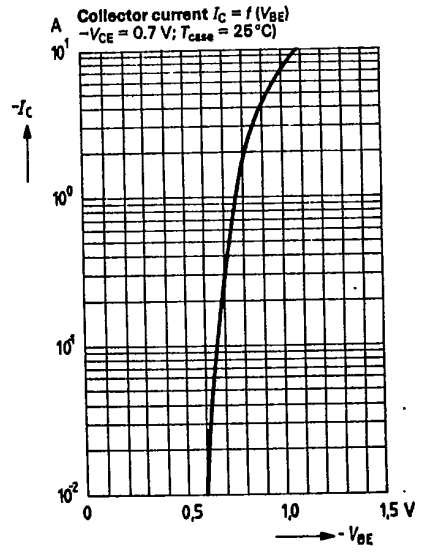
Collector cutoff current versus temperature $I_{CES} = f(T_{case})$

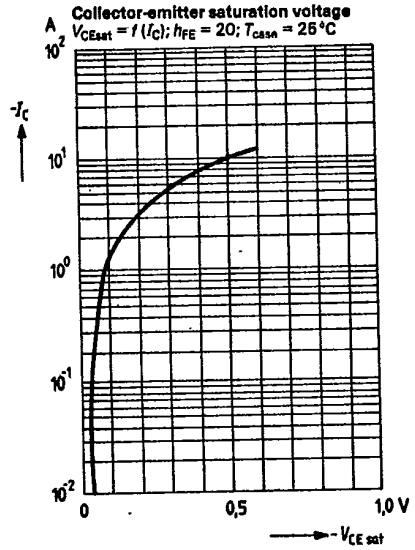


BD 287
BD 288

SIEMENS AKTIENGESELLSCHAF

T-33-19





1768 G-13