



TELEFUNKEN electronic
Creative Technologies

Silicon NPN Planar Power Transistors

T-33-07

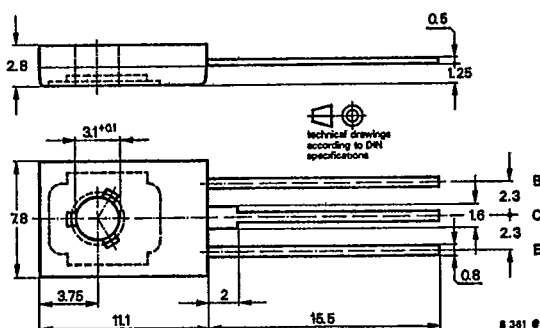
Applications: General at high supply voltages

Features:

● High reverse voltage

● Power dissipation 17.5 W

Dimensions in mm



Collector connected with
metallic surface

Standard plastic case
12 A 3 DIN 41 869
JEDEC TO 126 (SOT 32)
Weight max. 0.8 g

Accessories

Isolating washer No. 119880

Washer 3.2 DIN 125A

Absolute maximum ratings

		BD 127	BD 128	BD 129	
Collector-base voltage	V_{CBO}	300	350	400	V
Collector-emitter voltage	V_{CEO}	250	300	350	V
Emitter-base voltage	V_{EBO}		5		V
Collector current	I_C		500		mA
Total power dissipation $T_{case} \leq 45^\circ C$	P_{tot}		17.5		W
Junction temperature	T_J		150		$^\circ C$
Storage temperature range	T_{stg}		-55 ... +150		$^\circ C$
Tightening torque	$M_A^{1)}$		70		N cm

Maximum thermal resistance

Junction case	R_{thJC}	6	K/W
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¹⁾ with screw M3 and washer 3.2 DIN 125A

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Characteristics

Min. Typ. Max.

$T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

Collector cut-off current

$V_{CB} = 150\text{ V}$ I_{CBO} 50 nA
 $V_{CB} = 150\text{ V}$, $T_{amb} = 150^{\circ}\text{C}$ I_{CBO} 100 μA

Collector-base breakdown voltage

$I_C = 1\text{ }\mu\text{A}$ BD 127 $V_{(BR)CBO}$ 300 V
BD 128 $V_{(BR)CBO}$ 350 V
BD 129 $V_{(BR)CBO}$ 400 V

Collector-emitter breakdown voltage

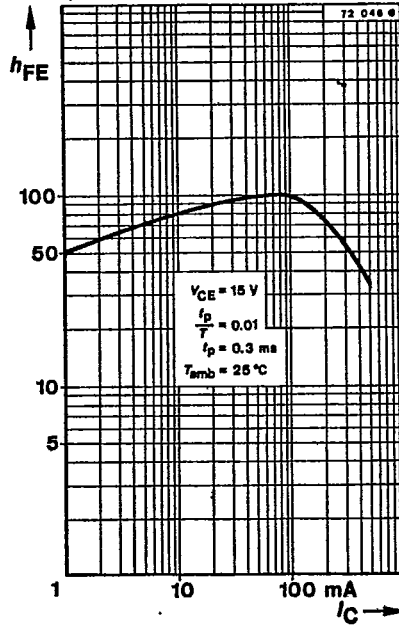
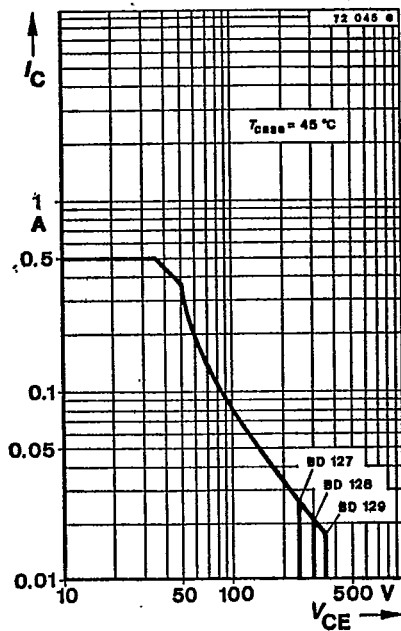
$I_C = 1\text{ mA}$ BD 127 $V_{(BR)CEO}^{1)}$ 250 V
BD 128 $V_{(BR)CEO}^{1)}$ 300 V
BD 129 $V_{(BR)CEO}^{1)}$ 350 V

Emitter-base breakdown voltage

$I_E = 1\text{ }\mu\text{A}$ $V_{(BR)EBO}$ 5 V

DC forward current transfer ratio

$V_{CE} = 15\text{ V}$, $I_C = 1\text{ mA}$ $h_{FE1)}$ 50
 $V_{CE} = 15\text{ V}$, $I_C = 50\text{ mA}$ h_{FE} 30



$t_p/T = 0.01$, $t_p = 0.3\text{ ms}$