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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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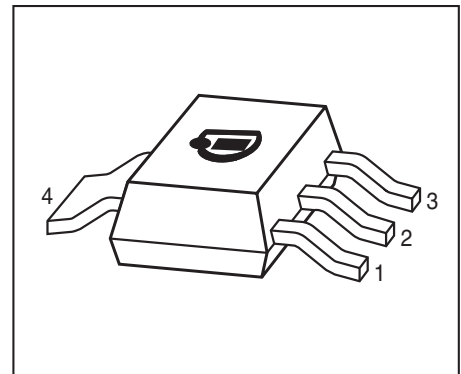
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NPN Silicon High-Voltage Transistors

- High breakdown voltage
- Low collector-emitter saturation voltage
- Complementary type: PZTA92 (PNP)
- Pb-free (RoHS compliant) package
- Qualified according AEC Q101



Type	Marking	Pin Configuration						Package
		1=B	2=C	3=E	4=C	-	-	
PZTA42	PZTA42	1=B	2=C	3=E	4=C	-	-	SOT223

Maximum Ratings

Parameter	Symbol	Value	Unit
Collector-emitter voltage	V_{CEO}	300	V
Collector-base voltage	V_{CBO}	300	
Emitter-base voltage	V_{EBO}	6	
Collector current	I_C	500	mA
Base current	I_B	100	
Total power dissipation- $T_S \leq 124\text{ °C}$	P_{tot}	1.5	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-65 ... 150	

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point ¹⁾	R_{thJS}	≤ 17	K/W

¹⁾For calculation of R_{thJA} please refer to Application Note AN077 (Thermal Resistance Calculation)

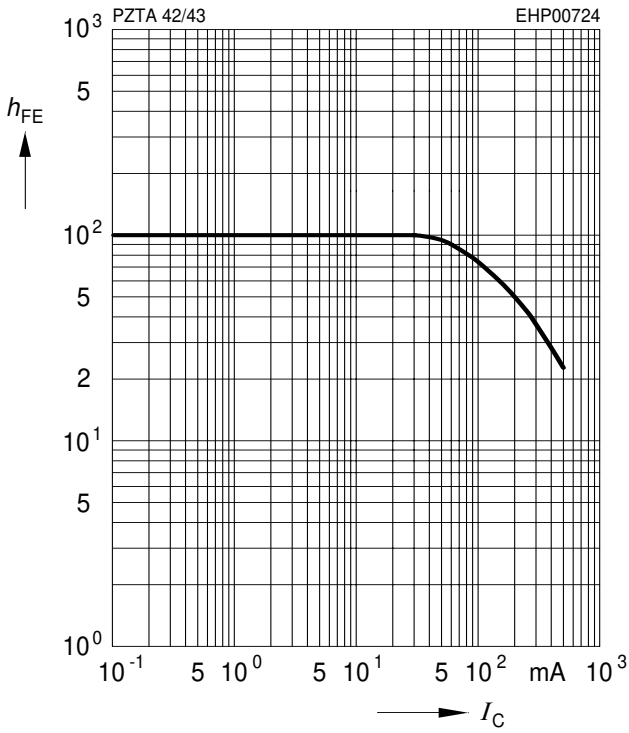
Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Collector-emitter breakdown voltage $I_C = 1\text{ mA}, I_B = 0$	$V_{(BR)CEO}$	300	-	-	V
Collector-base breakdown voltage $I_C = 100\text{ }\mu\text{A}, I_E = 0$	$V_{(BR)CBO}$	300	-	-	
Emitter-base breakdown voltage $I_E = 100\text{ }\mu\text{A}, I_C = 0$	$V_{(BR)EBO}$	6	-	-	
Collector-base cutoff current $V_{CB} = 200\text{ V}, I_E = 0$ $V_{CB} = 200\text{ V}, I_E = 0, T_A = 150\text{ }^\circ\text{C}$	I_{CBO}	-	-	0.1 20	μA
Emitter-base cutoff current $V_{EB} = 5\text{ V}, I_C = 0$	I_{EBO}	-	-	100	nA
DC current gain ¹⁾ $I_C = 1\text{ mA}, V_{CE} = 10\text{ V}$ $I_C = 10\text{ mA}, V_{CE} = 10\text{ V}$ $I_C = 30\text{ mA}, V_{CE} = 10\text{ V}$	h_{FE}	25 40 40	- - -	- - -	-
Collector-emitter saturation voltage ¹⁾ $I_C = 20\text{ mA}, I_B = 2\text{ mA}$	V_{CEsat}	-	-	0.5	V
Base emitter saturation voltage ¹⁾ $I_C = 20\text{ mA}, I_B = 2\text{ mA}$	V_{BEsat}	-	-	0.9	
AC Characteristics					
Transition frequency $I_C = 20\text{ MHz}, V_{CE} = 10\text{ V}, f = 20\text{ MHz}$	f_T	-	70	-	MHz
Collector-base capacitance $V_{CB} = 20\text{ V}, f = 1\text{ MHz}$	C_{cb}	-	-	3	pF

¹⁾Pulse test: $t < 300\mu\text{s}; D < 2\%$

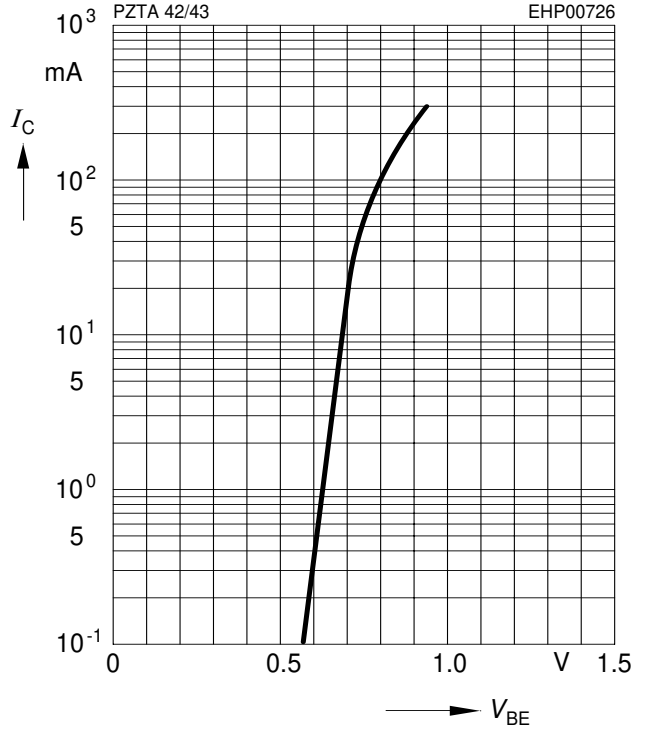
DC current gain $h_{FE} = f(I_C)$

$V_{CE} = 10\text{ V}$



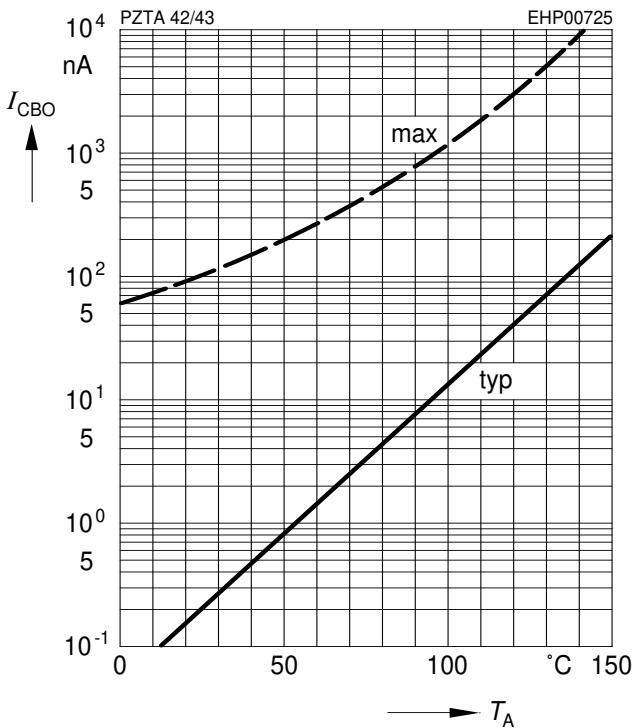
Collector current $I_C = f(V_{BE})$

$V_{CE} = 10\text{ V}$



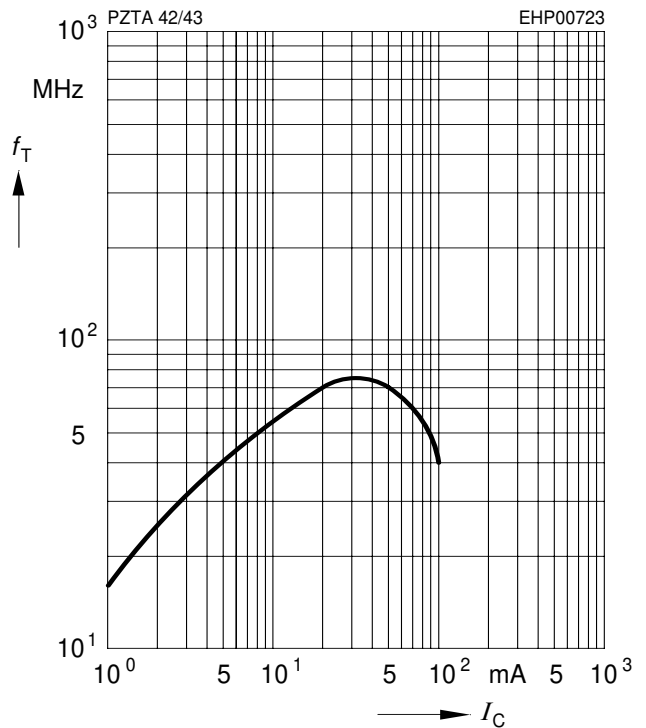
Collector cutoff current $I_{CBO} = f(T_A)$

$V_{CB} = 200\text{ V}$



Transition frequency $f_T = f(I_C)$

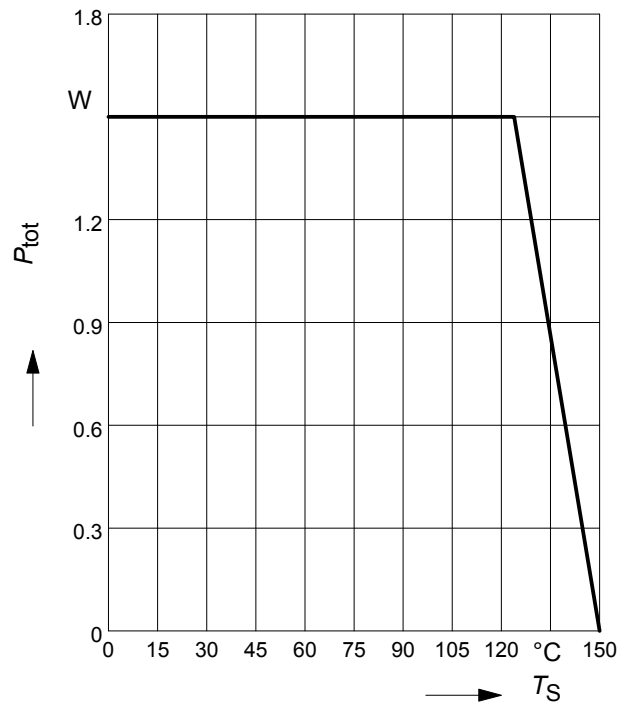
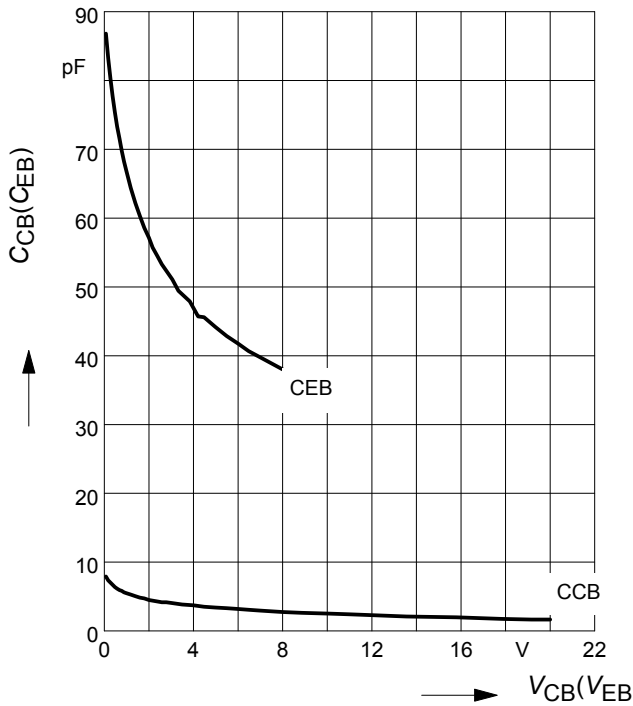
$V_{CE} = 10\text{ V}$



Collector-base capacitance $C_{cb} = f(V_{CB})$

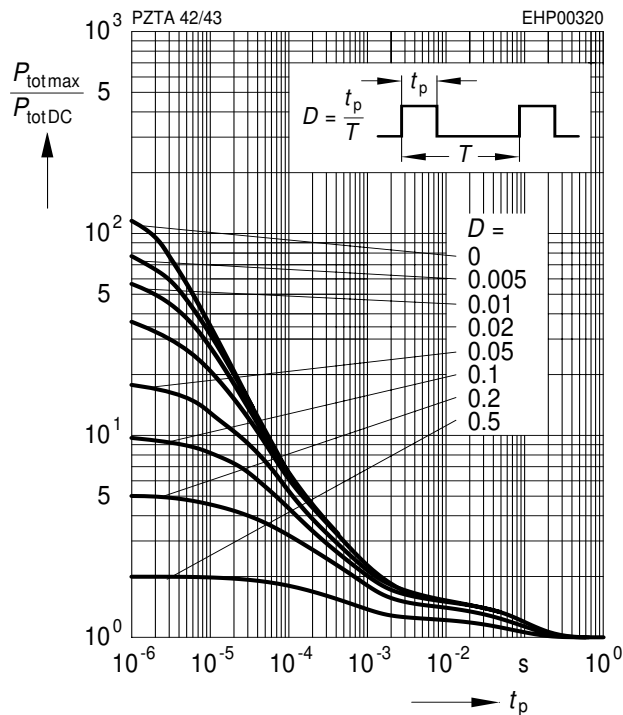
Emitter-base capacitance $C_{eb} = f(V_{EB})$

Total power dissipation $P_{tot} = f(T_S)$

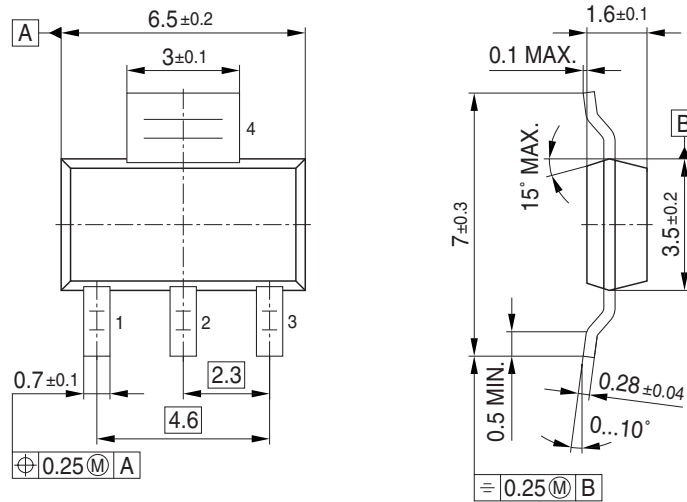
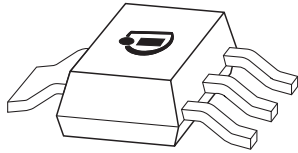


Permissible Pulse Load

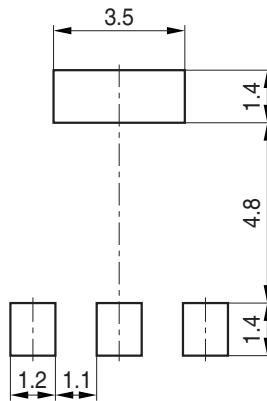
$P_{totmax}/P_{totDC} = f(t_p)$



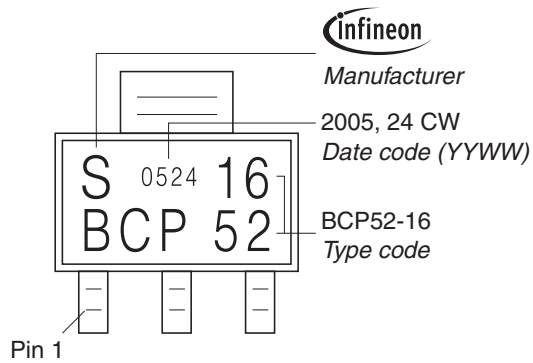
Package Outline



Foot Print

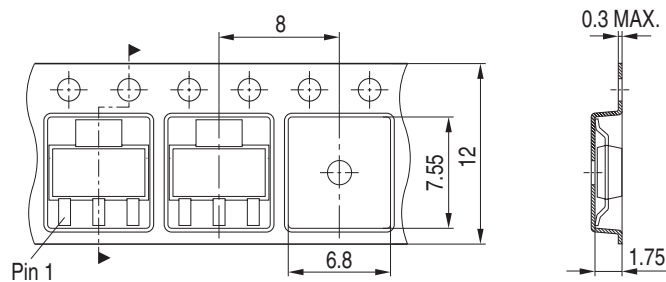


Marking Layout (Example)



Packing

Reel $\varnothing 180 \text{ mm} = 1.000 \text{ Pieces/Reel}$
 Reel $\varnothing 330 \text{ mm} = 4.000 \text{ Pieces/Reel}$



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