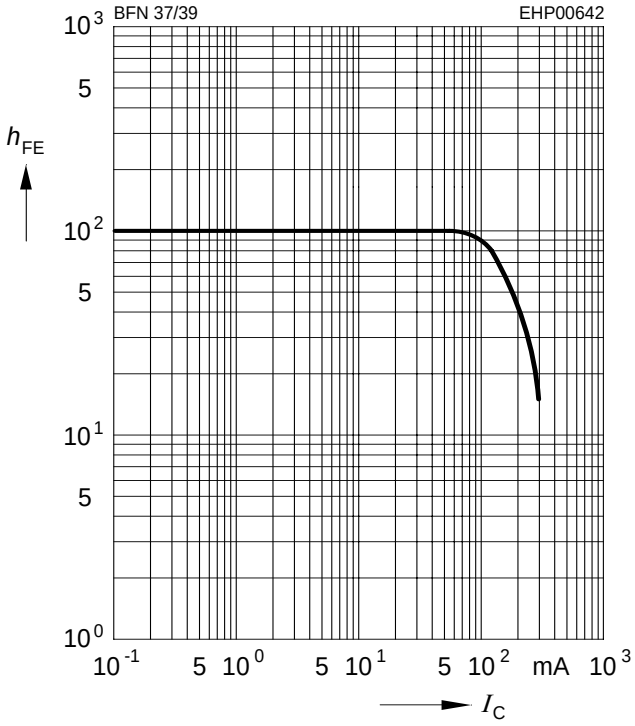
Electrical Characteristics at T_A = 25°C, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Collector-emitter breakdown voltage I_C = 1 mA, I_B = 0	$V_{(BR)CEO}$	300	-	-	V
Collector-base breakdown voltage I_C = 100 µA, I_E = 0	$V_{(BR)CBO}$	300	-	-	
Emitter-base breakdown voltage I_E = 100 µA, I_C = 0	$V_{(BR)EBO}$	5	-	-	
Collector-base cutoff current V_{CB} = 250 V, I_E = 0 V_{CB} = 250 V, I_E = 0 , T_A = 150 °C	I_{CBO}	 - -	 - -	 0.1 20	µA
Emitter-base cutoff current V_{EB} = 5 V, I_C = 0	I_{EBO}	-	-	100	nA
DC current gain[1)] I_C = 1 mA, V_{CE} = 10 V I_C = 10 mA, V_{CE} = 10 V I_C = 30 mA, V_{CE} = 10 V	h_{FE}	 25 40 30	 - - -	 - - -	-
Collector-emitter saturation voltage[1)] I_C = 20 mA, I_B = 2 mA	V_{CEsat}	-	-	0.5	V
Base emitter saturation voltage[1)] I_C = 20 mA, I_B = 2 mA	V_{BEsat}	-	-	0.9	
AC Characteristics					
Transition frequency I_C = 20 MHz, V_{CE} = 10 V, f = 100 MHz	f_T	-	100	-	MHz
Collector-base capacitance V_{CB} = 30 V, f = 1 MHz	C_{cb}	-	2.5	-	pF

[1]Pulse test: t < 300µs; D < 2%

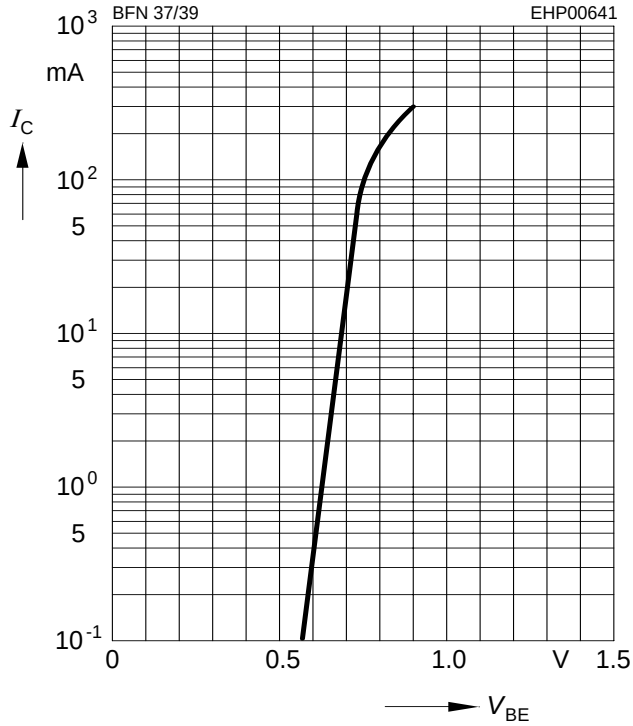
DC current gain $h_{FE} = f(I_C)$

V_{CE} = 10 V



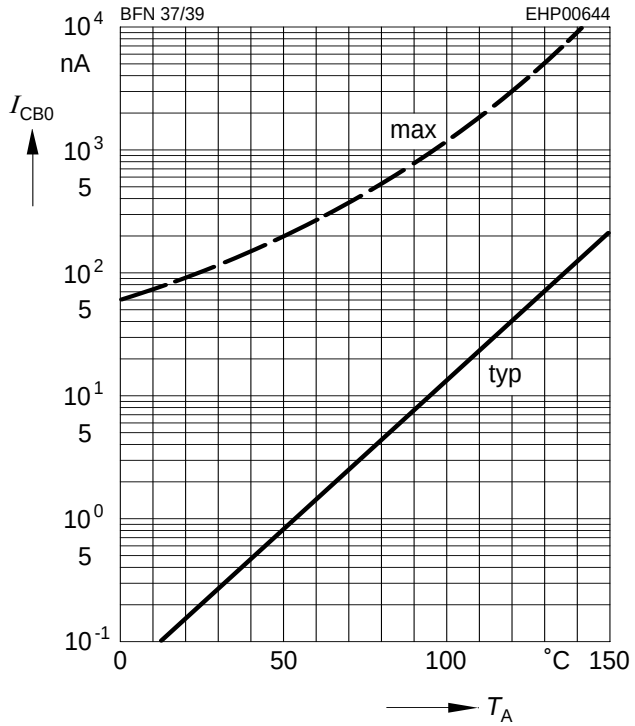
Collector current $I_C = f(V_{BE})$

V_{CE} = 10V



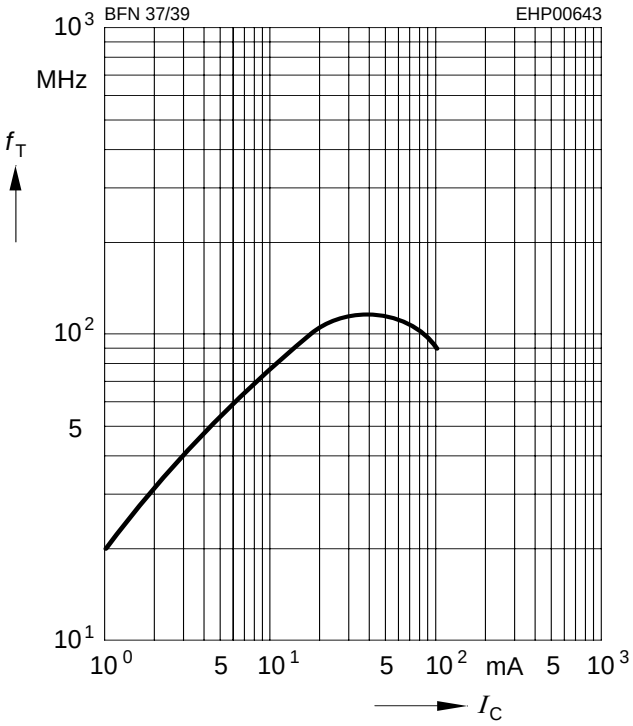
Collector cutoff current $I_{CBO} = f(T_A)$

V_{CBO} = 200 V

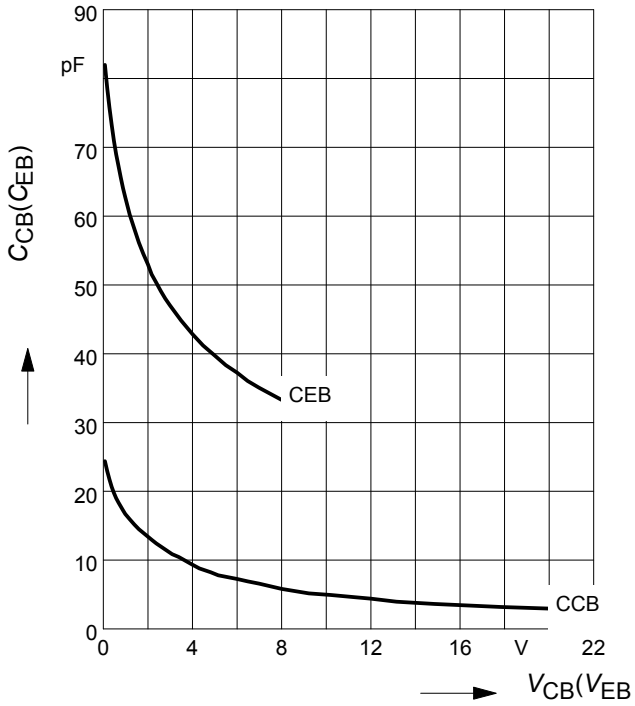


Transition frequency $f_T = f(I_C)$

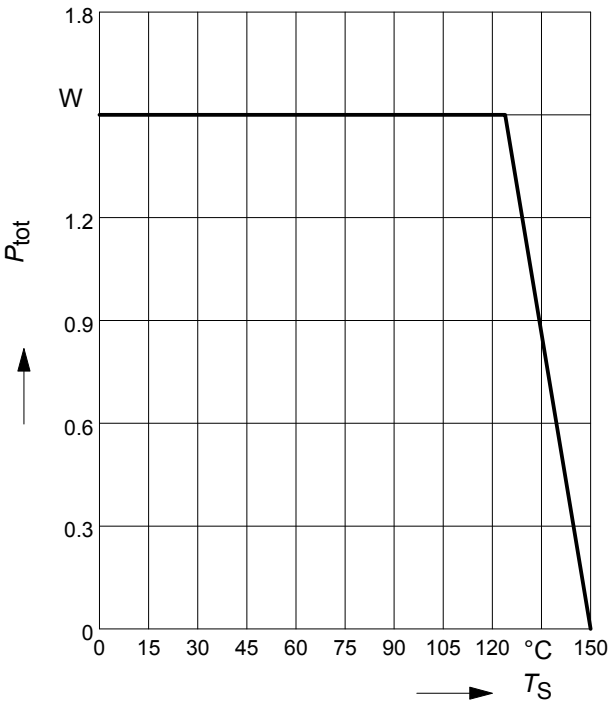
V_{CE} = 10 V



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

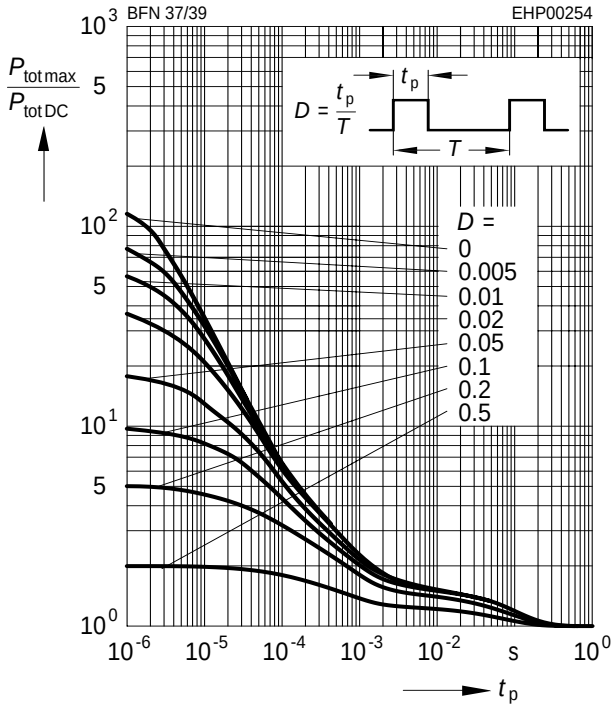


Total power dissipation $P_{tot} = f(T_S)$

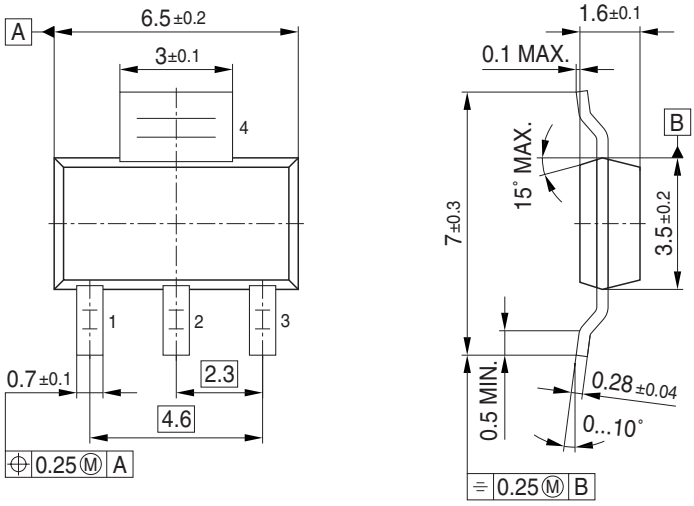


Permissible Pulse Load

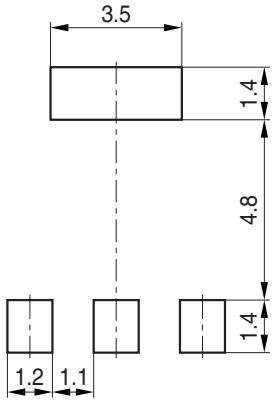
$P_{totmax}/P_{totDC} = f(t_p)$



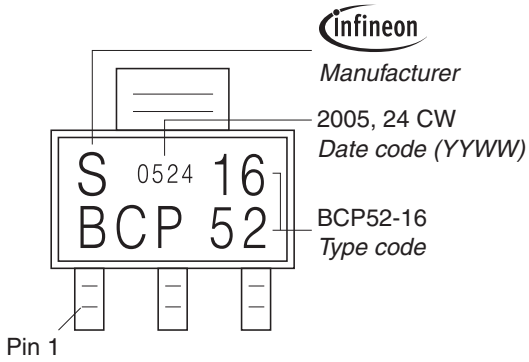
Package Outline



Foot Print

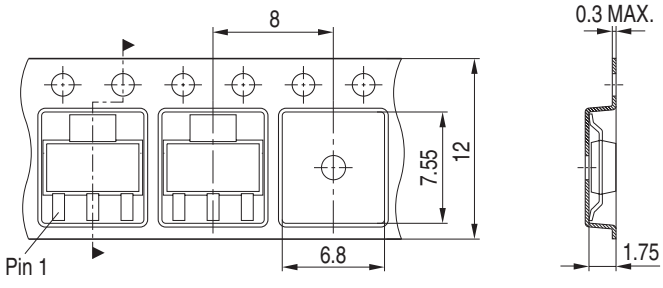


Marking Layout (Example)



Packing

Reel ø180 mm = 1.000 Pieces/Reel
Reel ø330 mm = 4.000 Pieces/Reel



Edition 2009-11-16

Published by
Infineon Technologies AG
81726 Munich, Germany

Legal Disclaimer

The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics. With respect to any examples or hints given herein, any typical values stated herein and/or any information regarding the application of the device, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation, warranties of non-infringement of intellectual property rights of any third party.

Information

For further information on technology, delivery terms and conditions and prices, please contact the nearest Infineon Technologies Office (<www.infineon.com>).

Warnings

Due to technical requirements, components may contain dangerous substances. For information on the types in question, please contact the nearest Infineon Technologies Office.
Infineon Technologies components may be used in life-support devices or systems only with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.