Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

PNP Silicon Digital Transistor

- Switching circuit, inverter, interface circuit, driver circuit

- Built in bias resistor (R_1 = 22 kΩ , R_2 = 22 kΩ)

- Pb-free (RoHS compliant) package

- Qualified according AEC Q101

AEC Qualified

RoHS
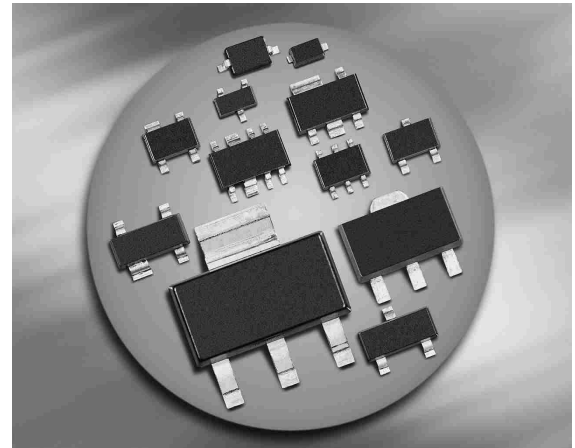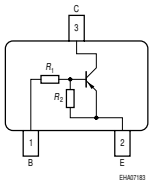
BCR191
BCR191W

Type	Marking	Pin Configuration						Package
BCR191	WOs	1=B	2=E	3=C	-	-	-	SOT23
BCR191W	WOs	1=B	2=E	3=C	-	-	-	SOT323

Maximum Ratings

Parameter	Symbol	Value	Unit
Collector-emitter voltage	V_{CEO}	50	V
Collector-base voltage	V_{CBO}	50	
Input forward voltage	$V_{i(fwd)}$	60	
Input reverse voltage	$V_{i(rev)}$	10	
Collector current	I_C	100	mA
Total power dissipation- BCR191, $T_S \leq 102°C$ BCR191W, $T_S \leq 124°C$	P_{tot}	 200 250	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-65 ... 150	

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point[1]	R_{thJS}		K/W
BCR191		≤ 240	
BCR191W		≤ 105	

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 = 100 µA, I_B = 0	$V_{(BR)CEO}$	50	-	-	V
Collector-base breakdown voltage I_C = 10 µA, I_E = 0	$V_{(BR)CBO}$	50	-	-	
Collector-base cutoff current V_{CB} = 40 V, I_E = 0	I_{CBO}	-	-	100	nA
Emitter-base cutoff current V_{EB} = 10 V, I_C = 0	I_{EBO}	-	-	350	µA
DC current gain[2] I_C = 5 mA, V_{CE} = 5 V	h_{FE}	50	-	-	-
Collector-emitter saturation voltage[2] I_C = 10 mA, I_B = 0.5 mA	V_{CEsat}	-	-	0.3	V
Input off voltage I_C = 100 µA, V_{CE} = 5 V	$V_{i(off)}$	0.8	-	1.5	
Input on voltage I_C = 2 mA, V_{CE} = 0.3 V	$V_{i(on)}$	1	-	2.5	
Input resistor	R_1	15	22	29	kΩ
Resistor ratio	R_1/R_2	0.9	1	1.1	-
AC Characteristics					
Transition frequency I_C = 10 mA, V_{CE} = 5 V, f = 100 MHz	f_T	-	200	-	MHz
Collector-base capacitance V_{CB} = 10 V, f = 1 MHz	C_{cb}	-	3	-	pF

[1]For calculation of R_{thJA} please refer to Application Note AN077 (Thermal Resistance Calculation)
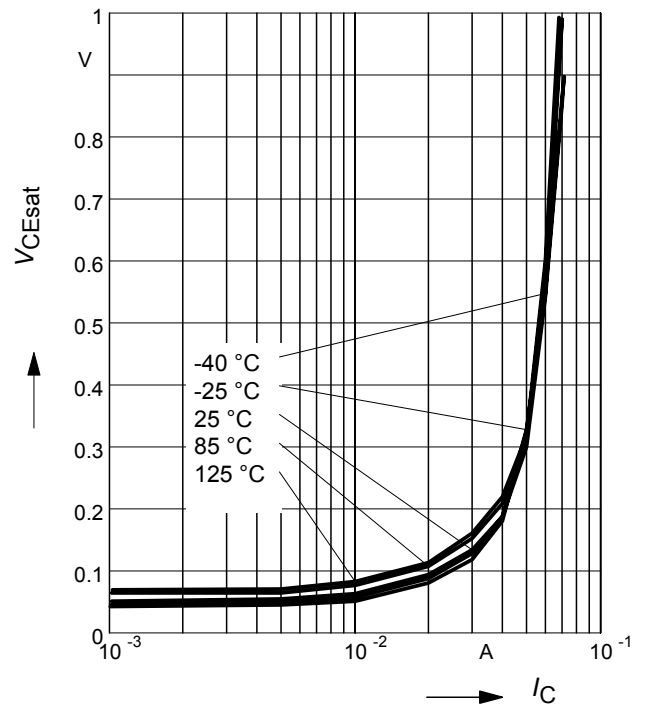[2]Pulse test: t < 300µs; D < 2%

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DC current gain $h_{FE} = f(I_C)$
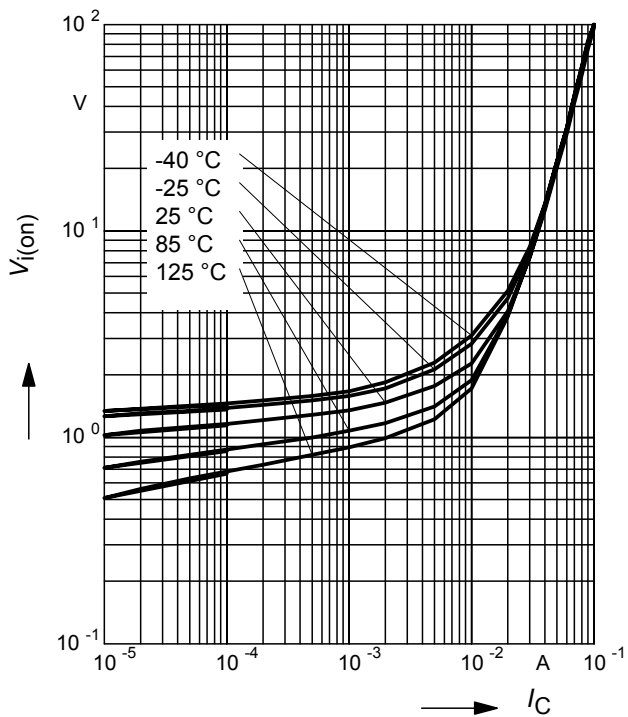
V_{CE} = 5 V (common emitter configuration)
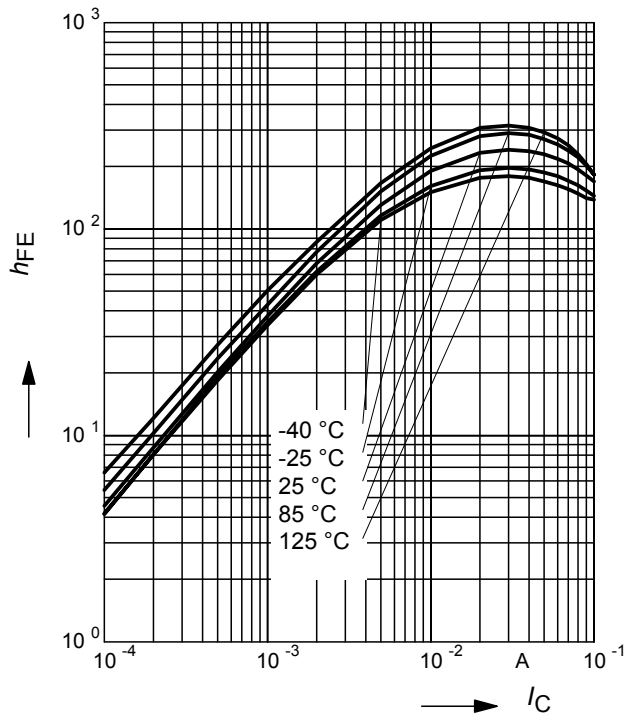
Collector-emitter saturation voltage
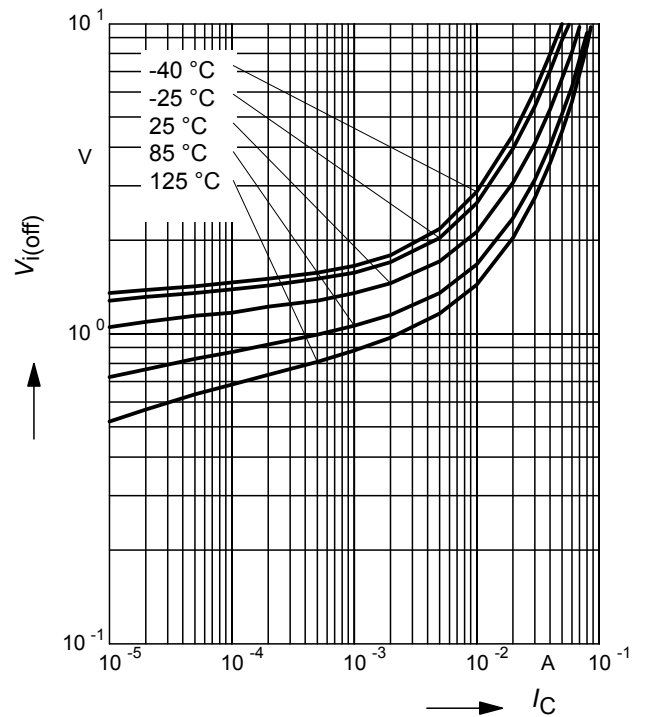
$V_{CEsat} = f(I_C)$, I_C/I_B = 20

Input on Voltage $V_{i(on)} = f(I_C)$

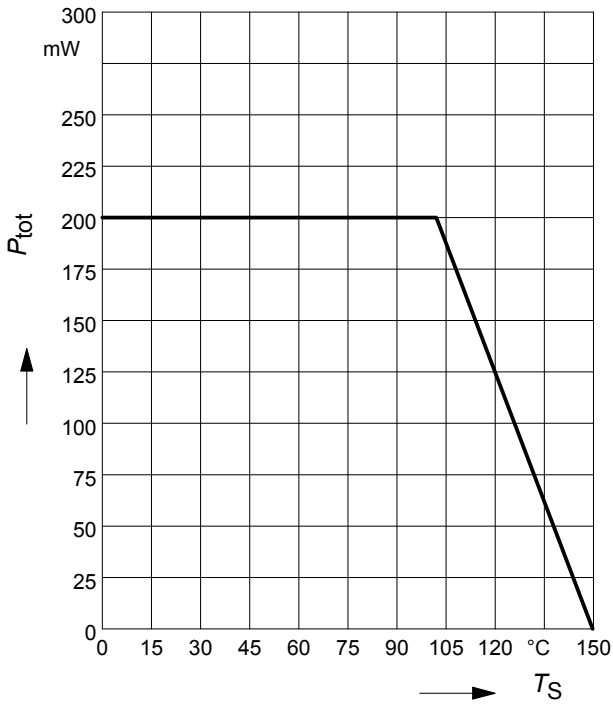V_{CE} = 0.3V (common emitter configuration)

Input off voltage $V_{i(off)} = f(I_C)$

V_{CE} = 5V (common emitter configuration)

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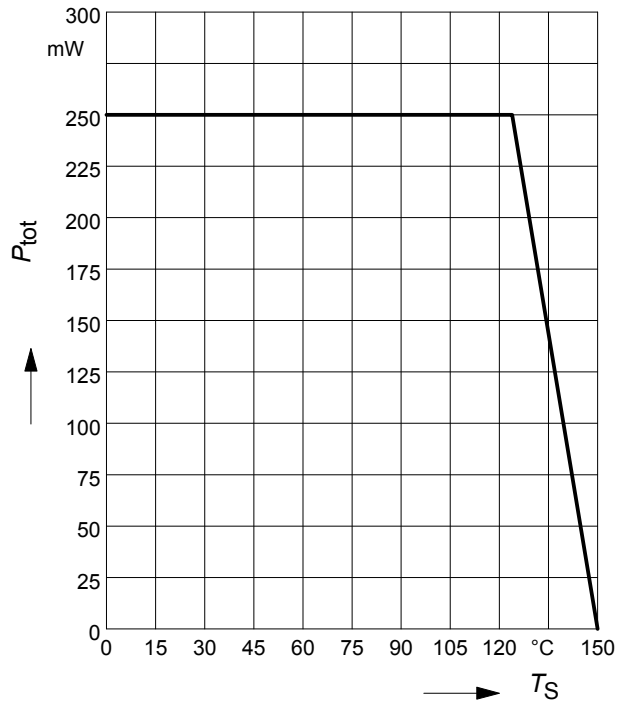
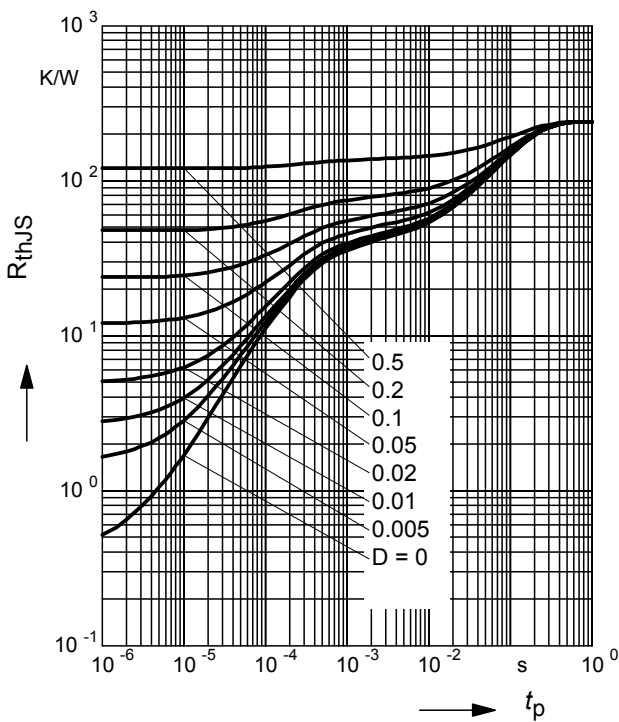**Total power dissipation $P_{tot} = f(T_S)$**
BCR191

Total power dissipation $P_{tot} = f(T_S)$
BCR191W
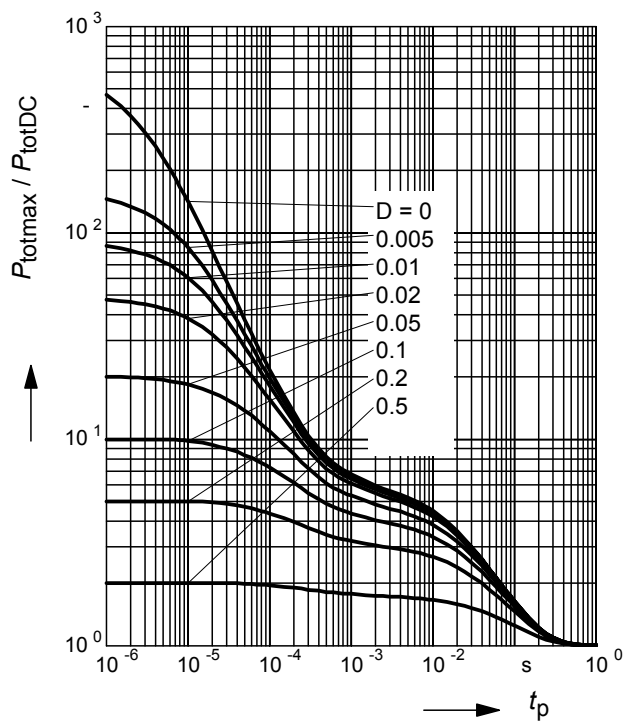

Permissible Pulse Load $R_{thJS} = f(t_p)$
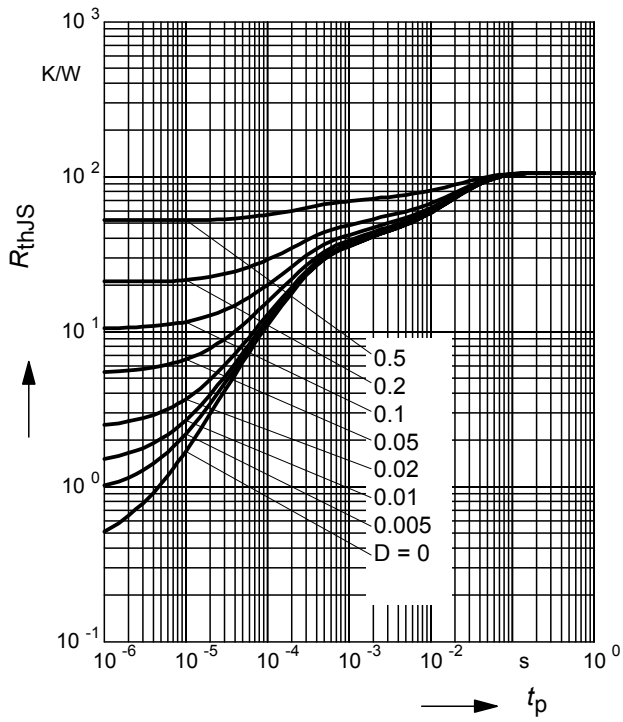BCR191

Permissible Pulse Load

$P_{totmax}/P_{totDC} = f(t_p)$
BCR191
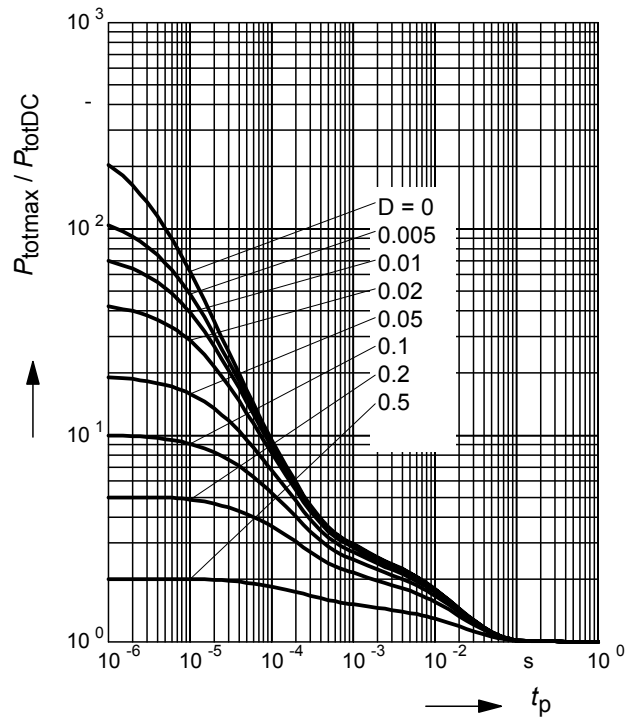
2011-08-30
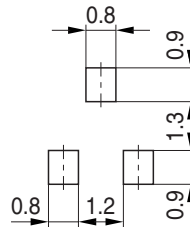
Permissible Puls Load $R_{thJS} = f(t_p)$

BCR191W

Permissible Pulse Load

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

BCR191W

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Package Outline

2.9 ±0.1 B

3

2.4 ±0.15
0.15 MIN.
1 ±0.1
0.1 MAX.
10° MAX.
10° MAX.
1.3 ±0.1
A
0.08...0.15
0...8°

1
2

0.4 +0.1 -0.05 1)
C
0.95
1.9

⊕ 0.25 Ⓜ B C

= 0.2 Ⓜ A
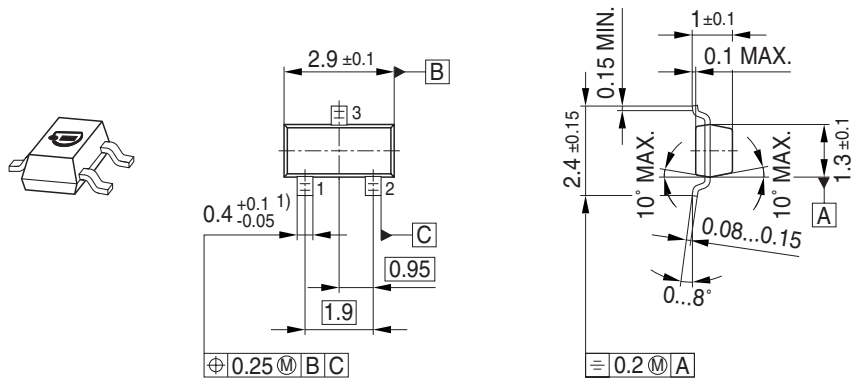
1) Lead width can be 0.6 max. in dambar area

Foot Print

0.8
0.9
1.3
0.8   1.2
0.9

Marking Layout (Example)

Infineon
Manufacturer

EH S 56

2005, June
Date code (YM)

Pin 1
BCW66
Type code

Standard Packing

Reel ø180 mm = 3.000 Pieces/Reel
Reel ø330 mm = 10.000 Pieces/Reel

4
0.9
0.2

2.13
2.65
8

Pin 1
3.15
1.15

Package Outline

Foot Print
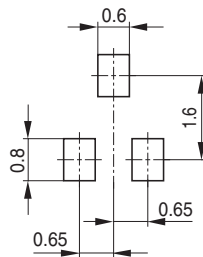
Marking Layout (Example)
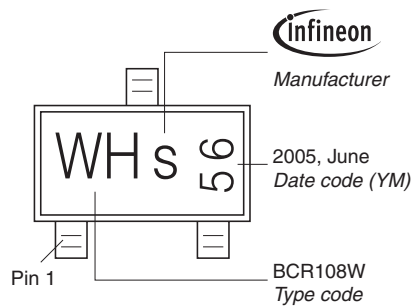
Manufacturer

2005, June
Date code (YM)

Pin 1

BCR108W
Type code

Standard Packing

Reel ø180 mm = 3.000 Pieces/Reel
Reel ø330 mm = 10.000 Pieces/Reel

Pin 1

2011-08-30
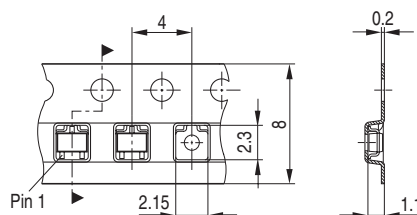
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2011-08-30