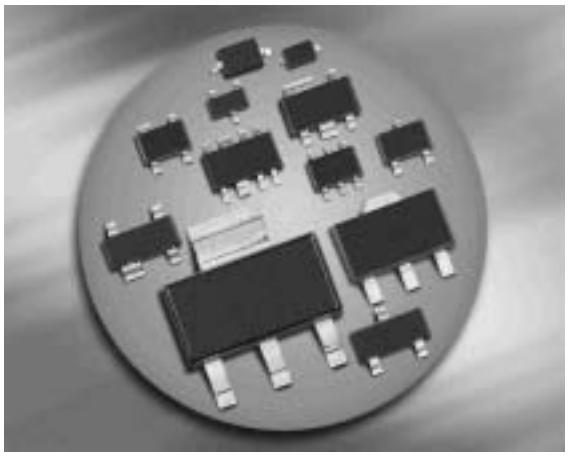
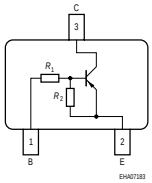
PNP Silicon Digital Transistor

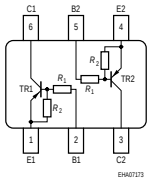


- Switching circuit, inverter, interface circuit, driver circuit
- Built in bias resistor (R_1 = 10 kΩ , R_2 = 10 kΩ)
- BCR183S / U: Two internally isolated transistors with good matching in one multichip package
- BCR183S / U: For orientation in reel see package information below
- Pb-free (RoHS compliant) package [1)]
- Qualified according AEC Q101

BCR183/F
BCR183W

BCR183S/U





Type	Marking	Pin Configuration						Package
BCR183	WMs	1=B	2=E	3=C	-	-	-	SOT23
BCR183F	WMs	1=B	2=E	3=C	-	-	-	TSFP-3
BCR183S	WMs	1=E1	2=B1	3=C2	4=E2	5=B2	6=C1	SOT363
BCR183U	WMs	1=E1	2=B1	3=C2	4=E2	5=B2	6=C1	SC74
BCR183W	WMs	1=B	2=E	3=C	-	-	-	SOT323

[1]Pb-containing package may be available upon special request

Maximum Ratings

Parameter	Symbol	Value	Unit
Collector-emitter voltage	V_{CEO}	50	V
Collector-base voltage	V_{CBO}	50	
Input forward voltage	$V_{i(fwd)}$	40	
Input reverse voltage	$V_{i(rev)}$	10	
Collector current	I_C	100	mA
Total power dissipation-	P_{tot}		mW
BCR183, $T_S \leq 102°C$		200	
BCR183F, $T_S \leq 128°C$		250	
BCR183S, $T_S \leq 115°C$		250	
BCR183U, $T_S \leq 118°C$		250	
BCR183W, $T_S \leq 124°C$		250	
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
BCR183		≤ 240	
BCR183F		≤ 90	
BCR183S		≤ 140	
BCR183U		≤ 133	
BCR183W		≤ 105	

[1]For calculation of R_{thJA} please refer to Application Note Thermal Resistance

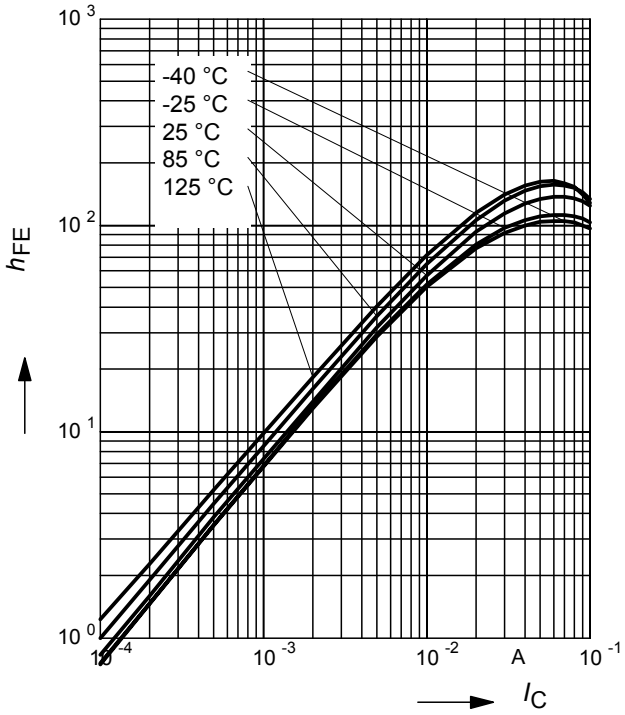
Electrical Characteristics at T_A = 25°C, unless otherwise specified

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}	-	-	0.75	mA
DC current gain[1)] I_C = 5 mA, V_{CE} = 5 V	h_{FE}	30	-	-	-
Collector-emitter saturation voltage[1)] 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	-	1.8	
Input on voltage I_C = 2 mA, V_{CE} = 0.3 V	$V_{i(on)}$	1	-	2.5	
Input resistor	R_1	7	10	13	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]Pulse test: t < 300µs; D < 2%

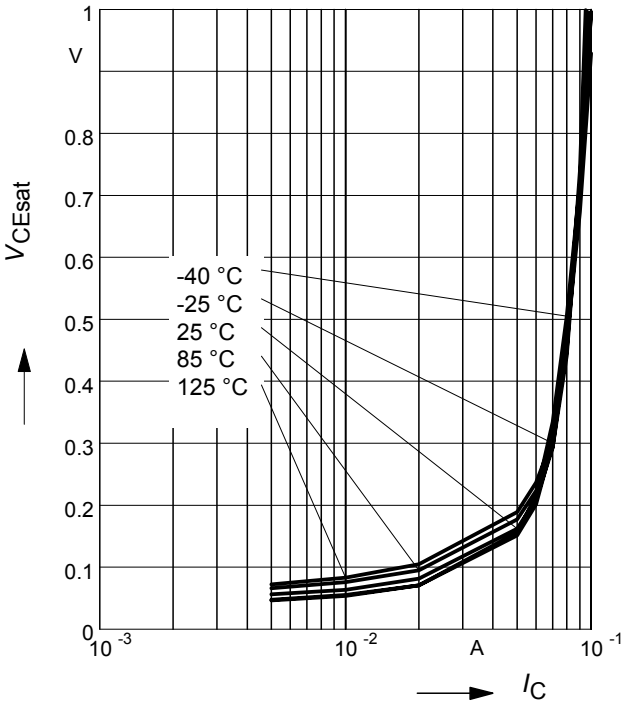
DC current gain $h_{FE} = f(I_C)$

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



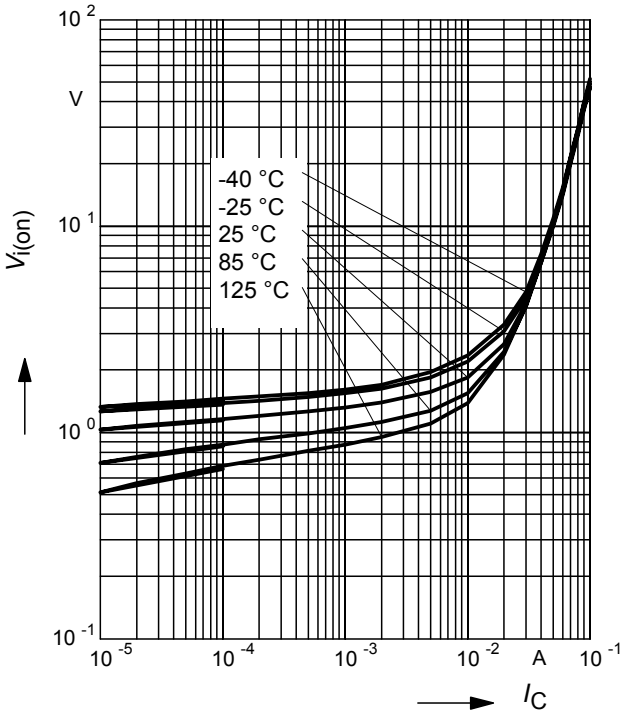
Collector-emitter saturation voltage

$V_{CEsat} = f(I_C)$, I_C/I_B = 20



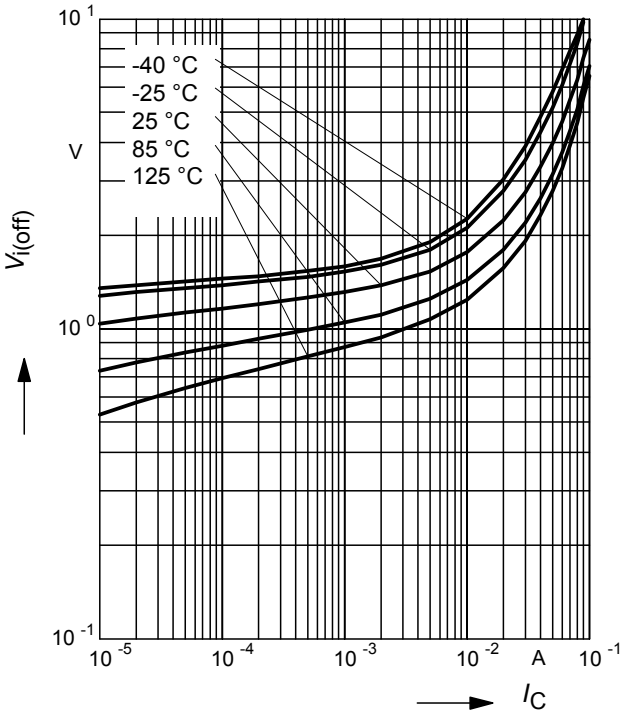
Input on Voltage $V_{i(on)} = f(I_C)$

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

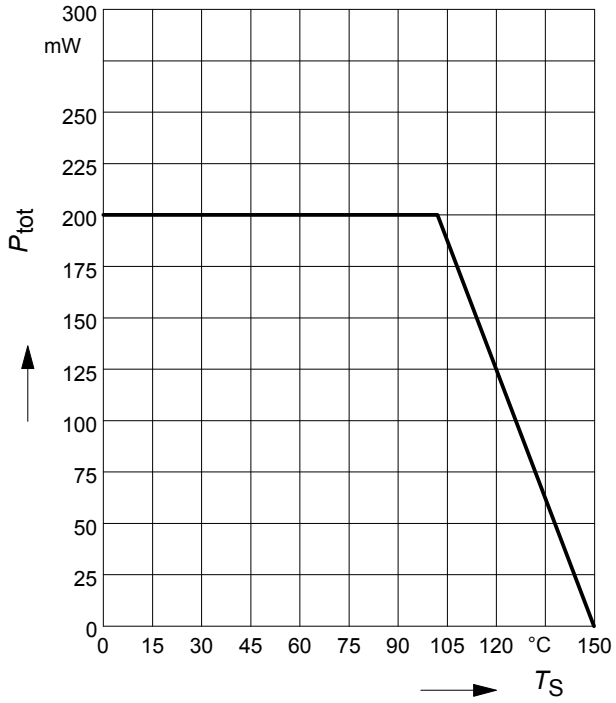


Input off voltage $V_{i(off)} = f(I_C)$

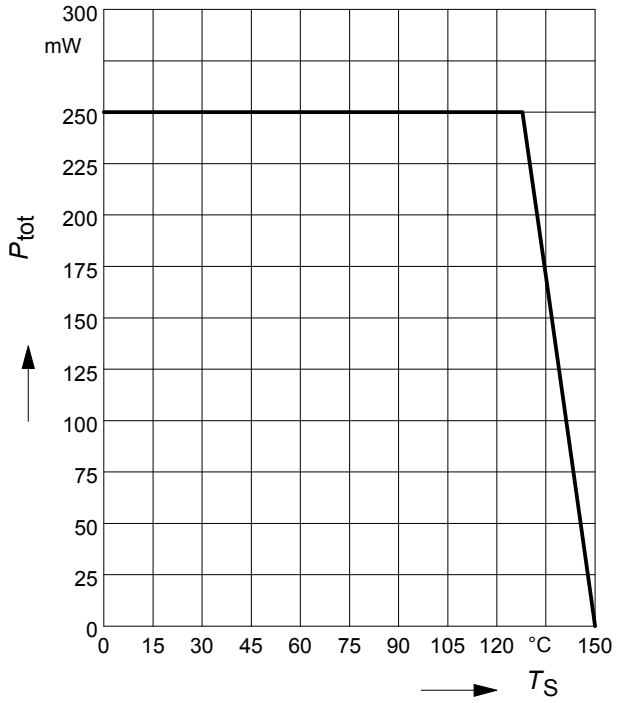
V_{CE} = 5V (common emitter configuration)



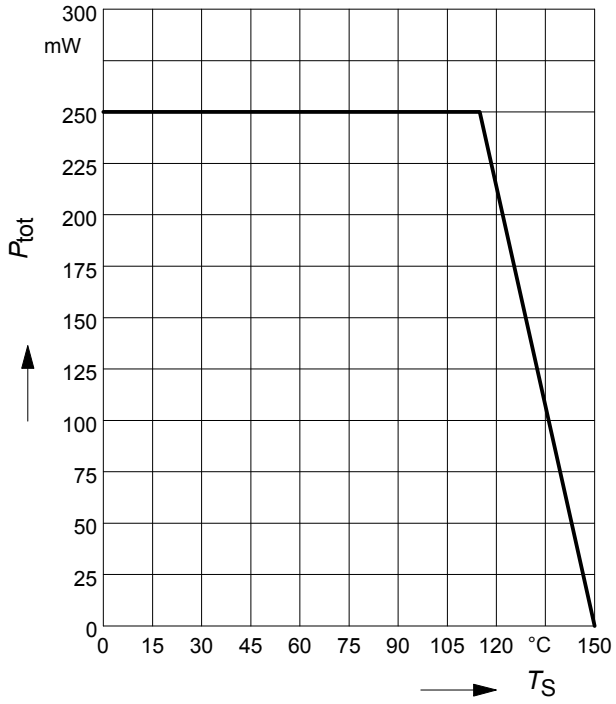
Total power dissipation $P_{tot} = f(T_S)$
BCR183



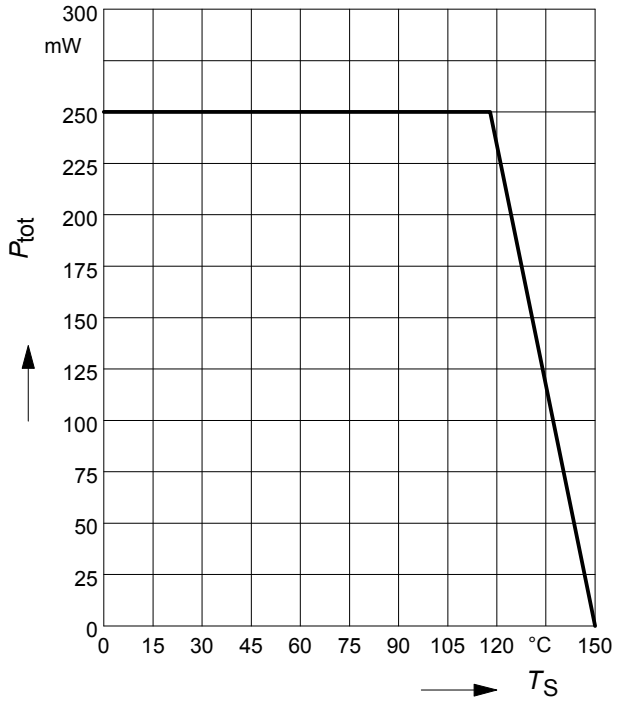
Total power dissipation $P_{tot} = f(T_S)$
BCR183F



Total power dissipation $P_{tot} = f(T_S)$
BCR183S

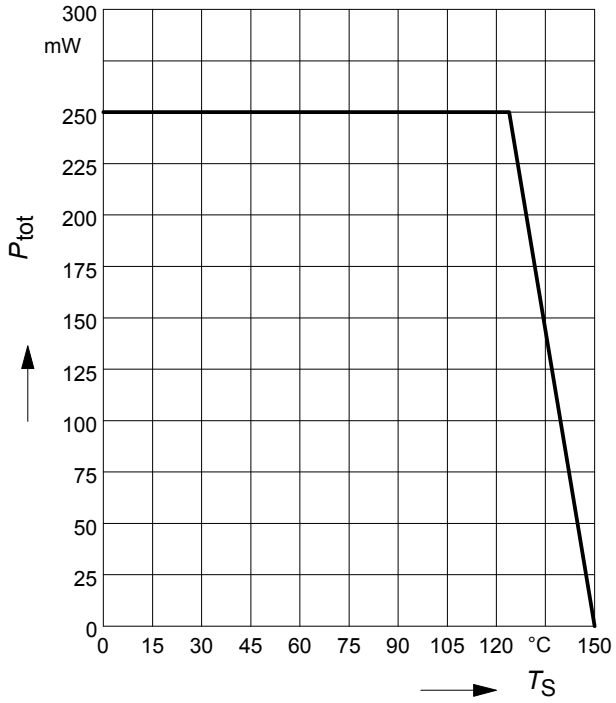


Total power dissipation $P_{tot} = f(T_S)$
BCR183U



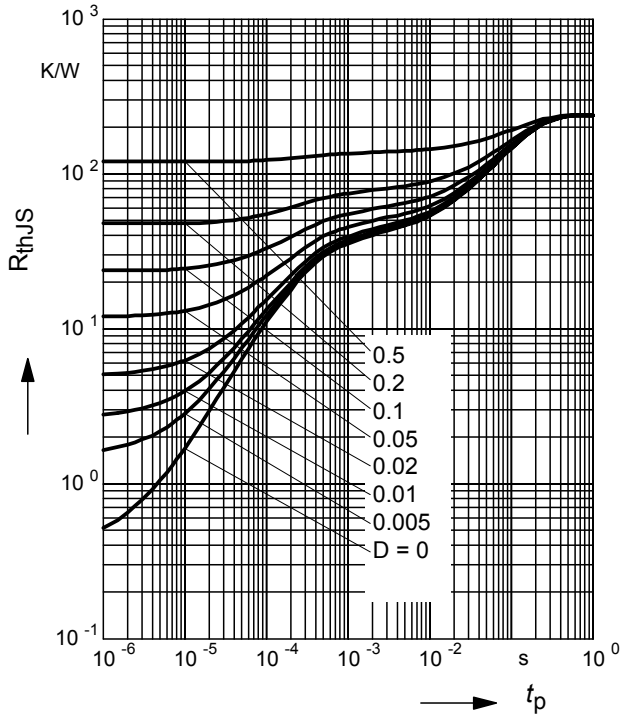
Total power dissipation $P_{tot} = f(T_S)$

BCR183W



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

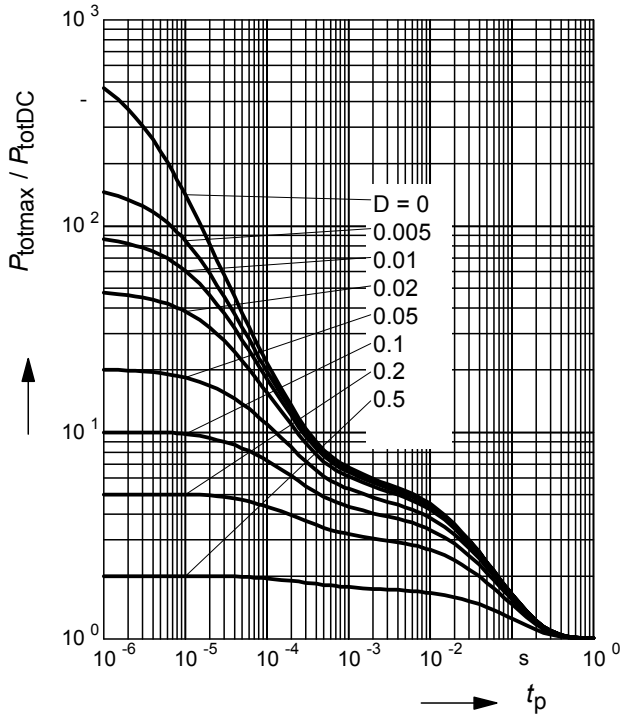
BCR183



Permissible Pulse Load

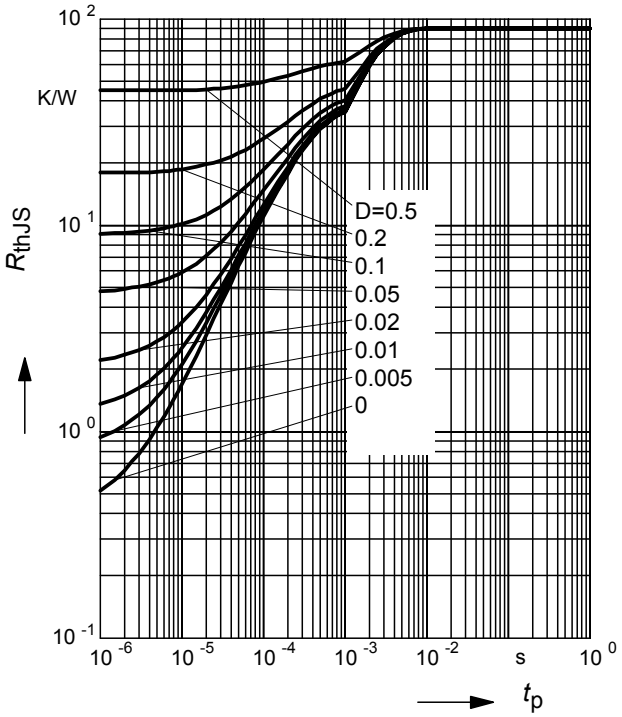
$P_{totmax}/P_{totDC} = f(t_p)$

BCR183



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

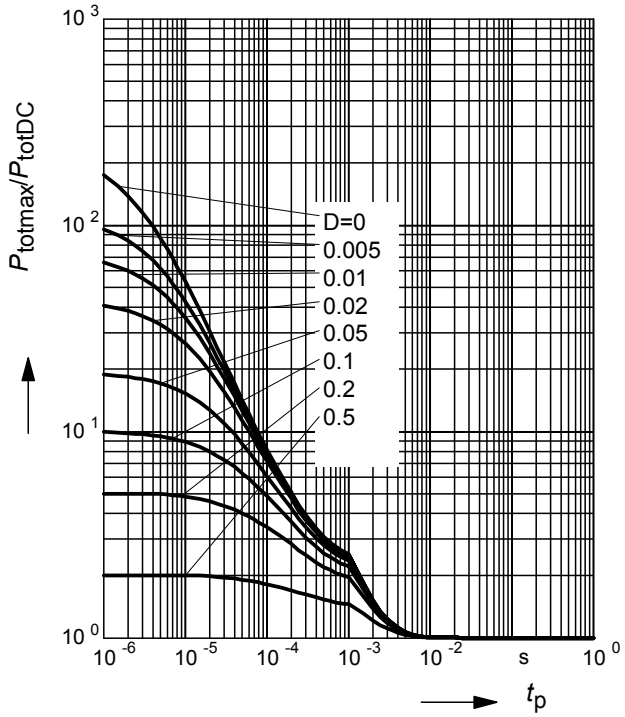
BCR183F



Permissible Pulse Load

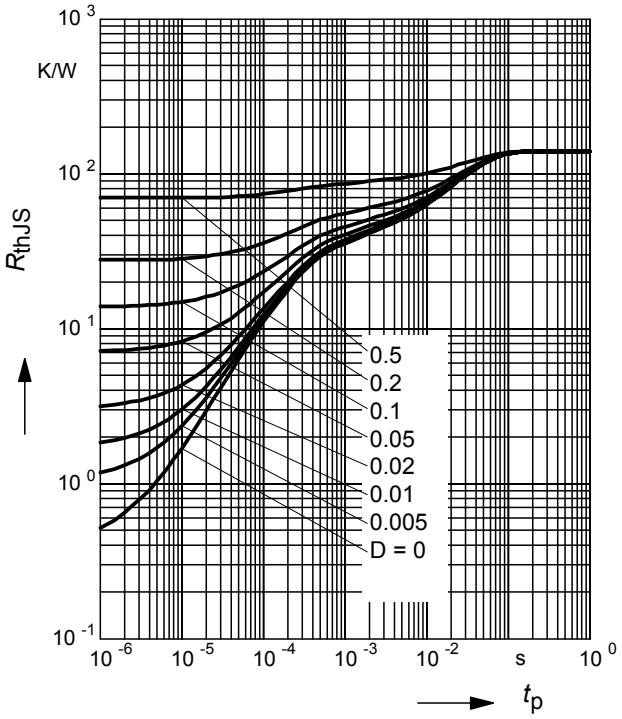
$P_{totmax}/P_{totDC} = f(t_p)$

BCR183F



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

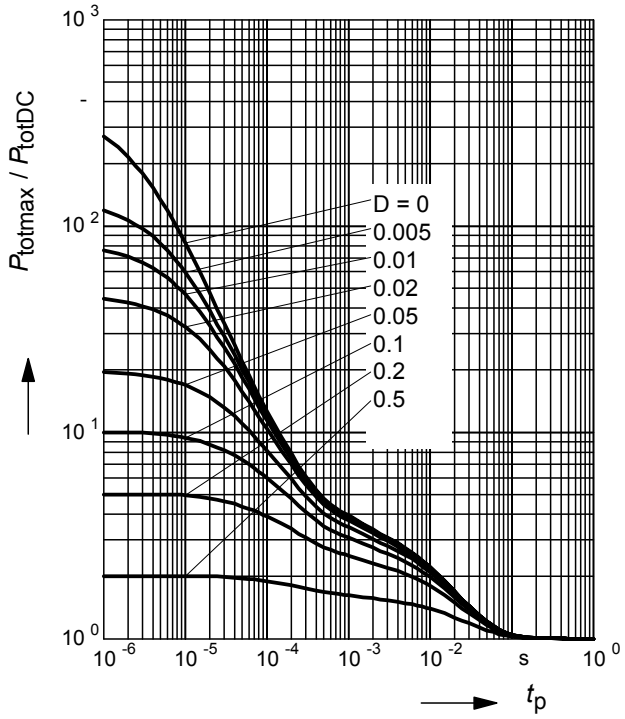
BCR183S



Permissible Pulse Load

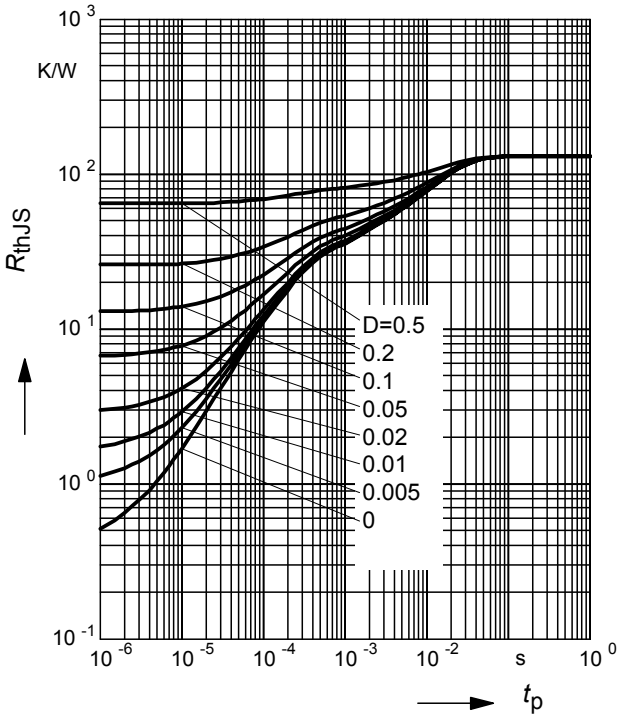
$P_{totmax}/P_{totDC} = f(t_p)$

BCR183S



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

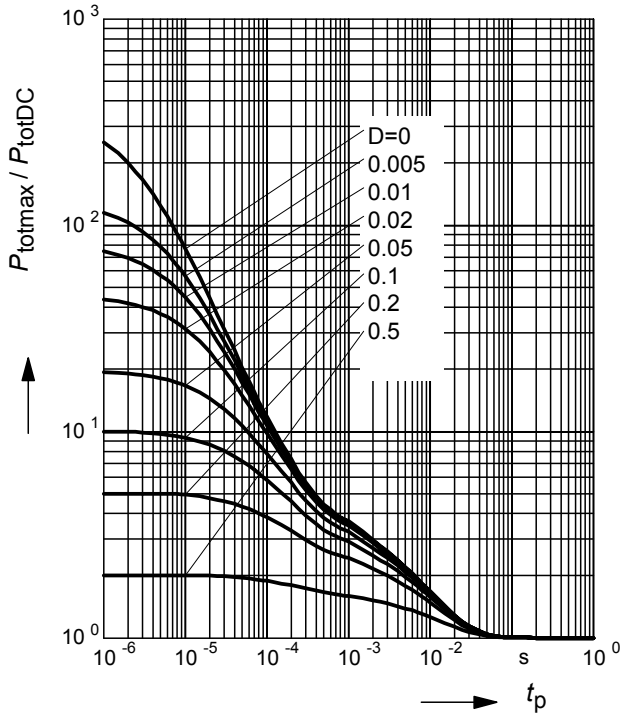
BCR183U



Permissible Pulse Load

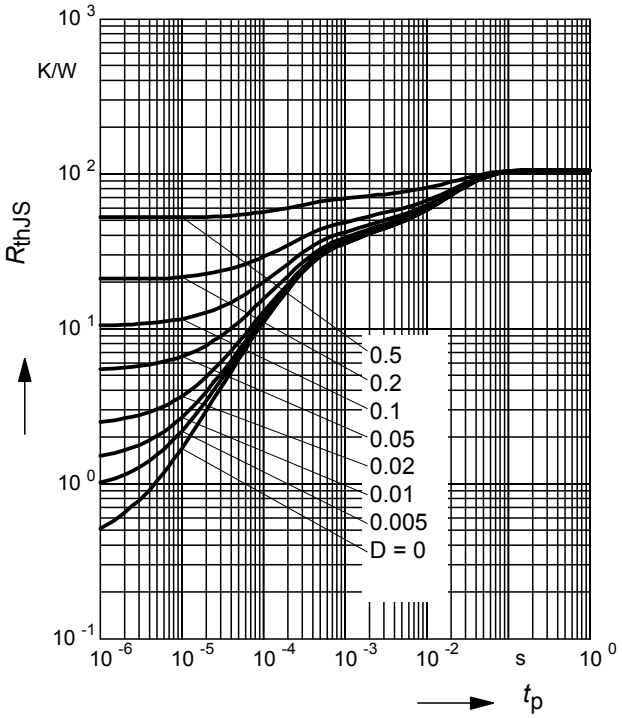
$P_{totmax}/P_{totDC} = f(t_p)$

BCR185U



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

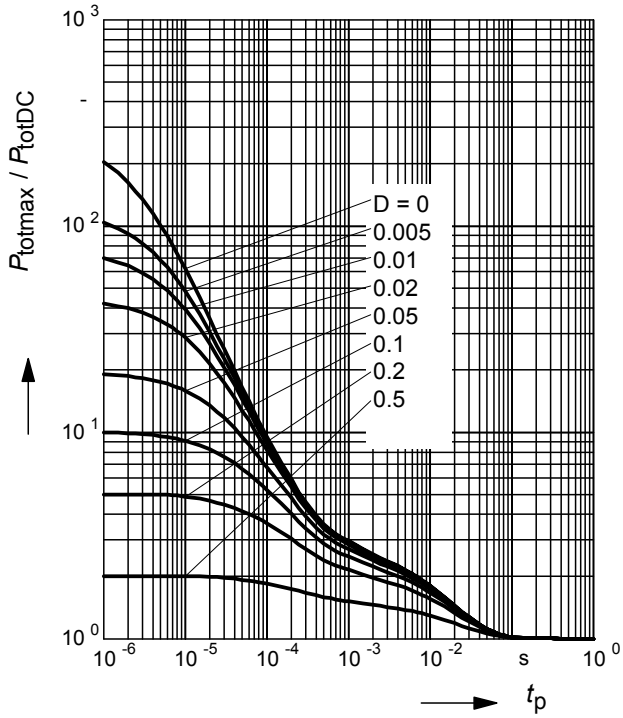
BCR183W



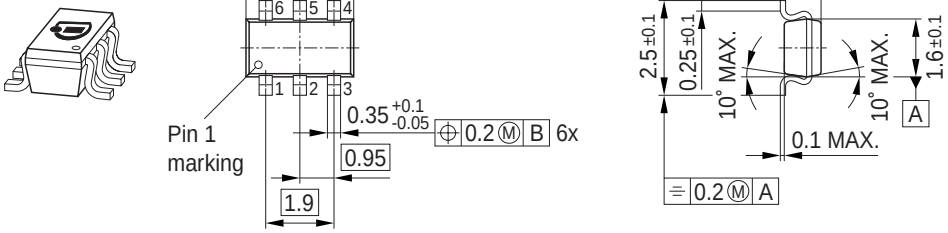
Permissible Pulse Load

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

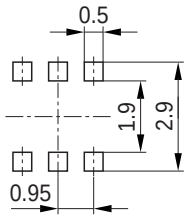
BCR183W



Package Outline

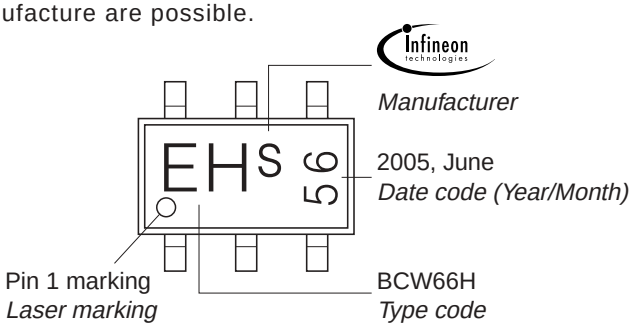


Foot Print



Marking Layout (Example)

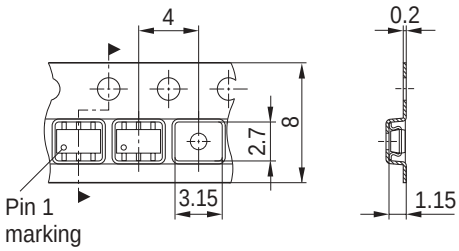
Small variations in positioning of
Date code, Type code and Manufacture are possible.



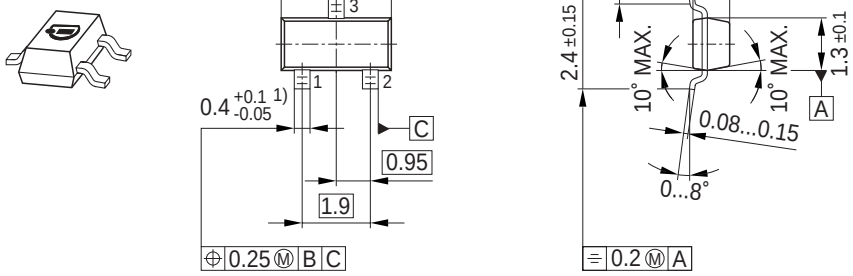
Standard Packing

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

For symmetric types no defined Pin 1 orientation in reel.

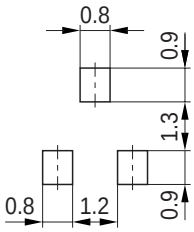


Package Outline

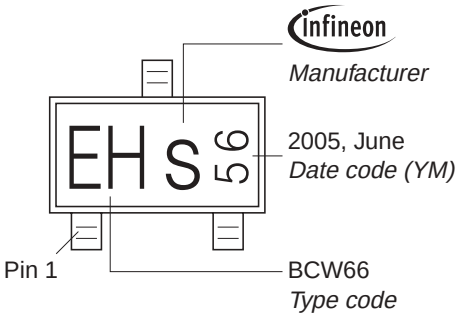


1) Lead width can be 0.6 max. in dambar area

Foot Print

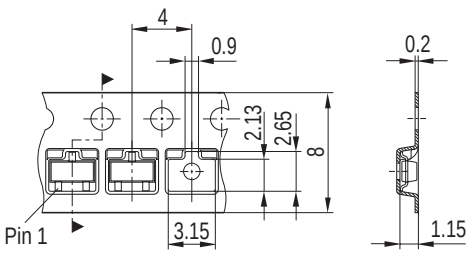


Marking Layout (Example)



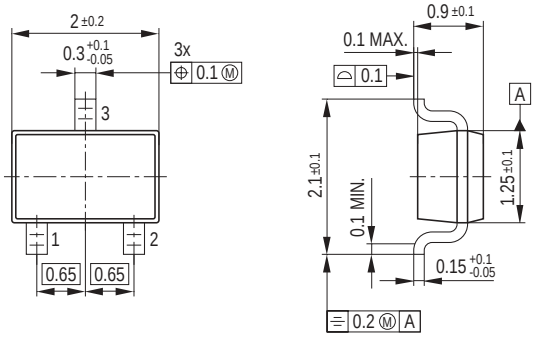
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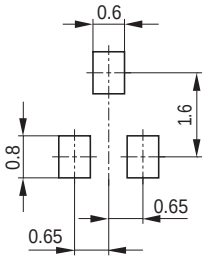


Package Outline

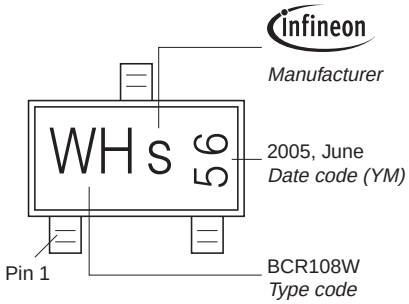




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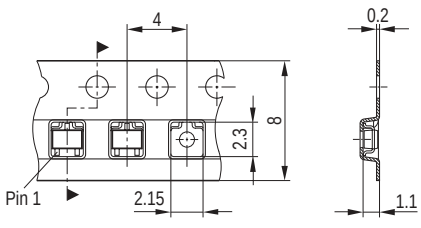


Marking Layout (Example)

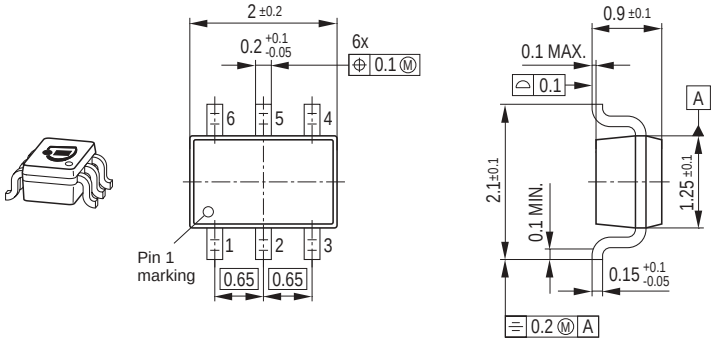


Standard Packing

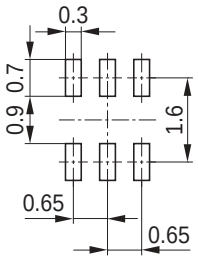
Reel ø180 mm = 3.000 Pieces/Reel
Reel ø330 mm = 10.000 Pieces/Reel



Package Outline

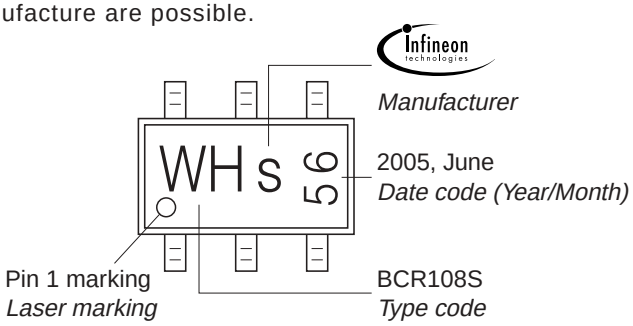


Foot Print



Marking Layout (Example)

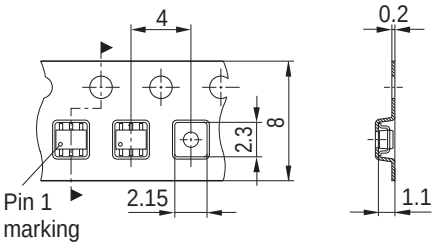
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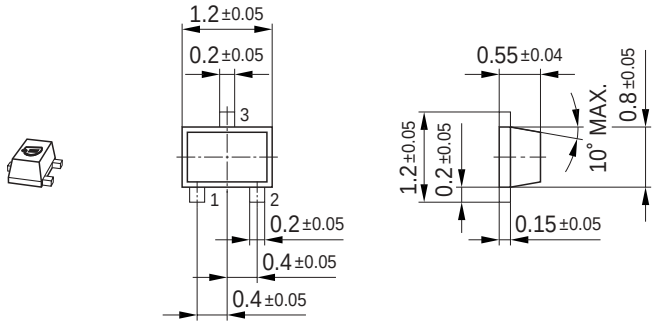
Standard Packing

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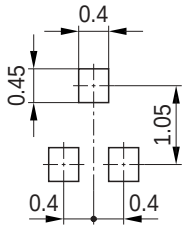
For symmetric types no defined Pin 1 orientation in reel.



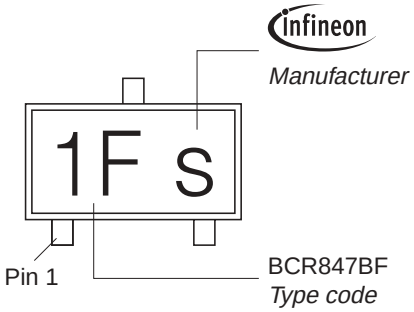
Package Outline



Foot Print

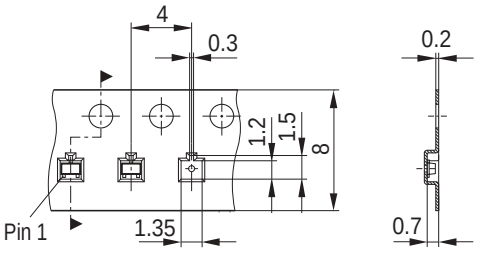


Marking Layout (Example)



Standard Packing

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



Edition 2006-02-01
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81726 München, Germany
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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.

OCEAN CHIPS
Океан Электроники
Поставка электронных компонентов

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «**JONHON**», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «**FORSTAR**».

AVIC JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).

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