

Relé subminiatura / subminiature relay

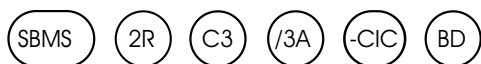
SBM

- 2, 4, ou 6 contatos reversíveis
- Montagem em soquete ou circuito impresso
- 4 tipos de contatos

- DPDT, 4PDT or 6PDT
- Socket or PC board mounting
- 4 contact types



CHAVE DO CÓDIGO / HOW TO ORDER



	Bobina / Coil	Código / Code	
	Bobina simples / Single coil = Branco / Nil		
	Bobina dupla / Double coil = -BD *		
	* Somente para relés CC. Bobina dupla ligada aos terminais 2 e 3 (somente fornecidos para este modelo). * Only for DC relays. Double coil connected to 2 and 3 terminals (used only in this model).		
	Montagem / Mounting	Código / Code	Exemplo / Example
	Soquete / Socket	-	SBMSRC3/3A
	Circuito impresso, lateral** / Printed circuit	-CI	SBMS2RC3/3A-CI
	Circuito impresso, central** / Printed circuit	-CIC	SBMS2RC3/3A-CIC
	**Vide desenho de furação da placa / See PC board hole layout		
	Branco / Nil = Contato bifurcado 2 A / Bifurcated 2 A contacts		
	/3 A = Contato simples 3 A / 3 A simple contact		
	/5 A = Contato simples 5 A / 5 A simple contact		
	/8 A = Contato simples 8 A / 8 A simple contact		
	Tensão nominal da bobina / Nominal coil voltage*		
	C1 = 6 VCC / VDC		
	C2 = 12 VCC / VDC		
	C3 = 24 VCC / VDC		
	C4 = 48 VCC / VDC		
	C5 = 60 VCC / VDC		
	C6 = 110 VCC / VDC		
	* Outras tensões sob consulta / Other voltages on inquiry		
	Números de contatos / Number of contacts		
	2R: 2 reversíveis / DPDT		
	4R: 4 reversíveis / 4PDT		
	6R: 6 reversíveis / 6PDT		
	Arranjos especiais sob consulta / Special arrangements on inquiry		
	SBM = Lâminas bifurcadas, contatos p/ 2 A / Bifurcated blades, 2 A contacts		Exemplo / Example
	SBMS = Lâminas simples, contatos p/ 3 A / Simple blades, 3 A contacts		SBM2RC3
	SBMS = Lâminas simples, contatos p/ 5 A / Simple blades, 5 A contacts		SBMS2RC3/3A
	SBMS = Lâminas simples, contatos p/ 8 A / Simple blades, 8 A contacts		SBMS2RC3/5A
			SBMS2RC3/8A

ESPECIFICAÇÕES / SPECIFICATIONS

Carga máxima nos contatos para CA / Maximum contact rating for AC Tipo / Type: SBM SBMS/3A SBMS/5A SBMS/8A	2 A resistivos ou (resistive or) 0,7 A indutivo a (inductive at) 220 VCA / VAC 3 A resistivos ou (resistive or) 1 A indutivo a (inductive at) 220 VCA / VAC 5 A resistivos ou (resistive or) 1,6 A indutivos a (inductive at) 250 VCA / VAC 8 A resistivos ou (resistive or) 2,7 A indutivos a (inductive at) 250 VCA / VAC
Carga máxima nos contatos para CC / Maximum contact rating for DC	Vide tabela / see table
Material dos contatos / Contact material Tipos / Type: SBM, SBMS/3A e SBMS/5A SBMS/8A	Ag/Ni 90/10 dourados / gold-plated Ag/Ni 90/10
Tempo de fechamento típico / Operate time (typ.) Tempo de abertura típico / Release time (typ.) Vida mecânica / Mechanical life Vida elétrica / Electrical life Temperatura ambiente máxima / Maximum ambient temperature	6 ms (com tensão nominal) / (with nominal voltage) 3 ms > 100x10 ⁶ operações / operations > 10 ⁵ operações / operations (40 operações / minuto) (operations / minute) 75°C
Rigidez dielétrica entre bobina e contatos Breakdown voltage between coil and contacts	1000 V, 60 Hz
Resistência de isolamento / Insulation resistance	5000 MΩ mínima, com 50% de umidade relativa, a 25°C 5000 MΩ minimum, with 50% R.H. at 25°C
Tolerância na tensão de operação / Operating voltage tolerance (Relés sensíveis conforme tabela) / (Sensitive relays as per table)	-15% , +10%
Peso aproximado / Approximate weight	SBM2:22g; SBM4:27g; SBM6:29g; SBM2/3A:22g; SBMS4/3A:27g; SBMS6/3A:29g; SBMS2/5A:24g; SBMS4/5A:28g; SBMS2/8A:24g

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RELÉS PARA CC / DC RELAYS

Lâminas bifurcadas - 2A Bifurcated blades - 2A		Lâminas Simples - 3A Simple blades - 3A		Lâminas Simples - 5A Simple blades - 5A	Lâminas Simples - 8A Simple blades - 8A	Bobina / Coil		
2 contatos reversíveis DPDT	4 contatos reversíveis 4PDT	2 contatos reversíveis DPDT	4 contatos reversíveis 4PDT	2 contatos reversíveis DPDT	2 contatos reversíveis DPDT	VCC VDC	mA	Ω^* $\pm 10\%$ (20°C)
SBM2RC1 SBM2RC2 SBM2RC3 SBM2RC4 SBM2RC5 SBM2RC6	SBM4RC1 SBM4RC2 SBM4RC3 SBM4RC4 SBM4RC5 SBM4RC6	SBMS2RC1/3A SBMS2RC2/3A SBMS2RC3/3A SBMS2RC4/3A SBMS2RC5/3A SBMS2RC6/3A	SBMS4RC1/3A SBMS4RC2/3A SBMS4RC3/3A SBMS4RC4/3A SBMS4RC5/3A SBMS4RC6/3A	SBMS2RC1/5A SBMS2RC2/5A SBMS2RC3/5A SBMS2RC4/5A SBMS2RC5/5A SBMS2RC6/5A	SBMS2RC1/8A SBMS2RC2/8A SBMS2RC3/8A SBMS2RC4/8A SBMS2RC5/8A SBMS2RC6/8A	6 12 24 48 60 110	100 46 25 19 12 7	60 260 950 2500 5000 15000
	6 contatos reversíveis 6PDT		6 contatos reversíveis 6PDT			VCC VDC	mA	Ω^* $\pm 10\%$ (20°C)
	SBM6RC1 SBM6RC2 SBM6RC3 SBM6RC4 SBM6RC5 SBM6RC6		SBMS6RC1/3A SBMS6RC2/3A SBMS6RC3/3A SBMS6RC4/3A SBMS6RC5/3A SBMS6RC6/3A			6 12 24 48 60 110	240 133 56 32 20 7	25 90 430 1500 3000 15000
				4 contatos reversíveis 4PDT		VCC VDC	mA	Ω^* $\pm 10\%$ (20°C)
				SBMS4RC1/5A SBMS4RC2/5A SBMS4RC3/5A SBMS4RC4/5A SBMS4RC5/5A SBMS4RC6/5A		6 12 24 48 60 110	171 89 45 21 19 7	35 135 530 2250 3200 15000

* $\pm 15\%$ acima de (over) 1200 Ω

As tabelas apresentam os códigos dos relés com terminais para soquete. Para especificar terminais para circuito impresso, acrescentar "-CI" ou "-CIC" ao código, conforme o tipo de terminal desejado (vide desenho de furação da placa). Exemplo: SBMS2RC3/3A-CI ou SBMS2RC3/3A-CIC.

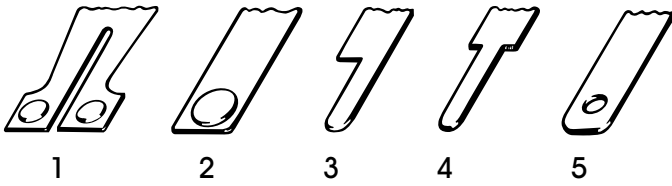
Tables show the relay code for socket mounting. To specify printed circuit mounting add "-CI" or "-CIC" to the relay code, according to the PC board layout. Example: SBMS2RC3/3A-CI or SBMS2RC3/3A-CIC.

$\pm 15\%$ acima de (over) 1200 Ω

RELÉS SENSÍVEIS / SENSITIVE RELAYS

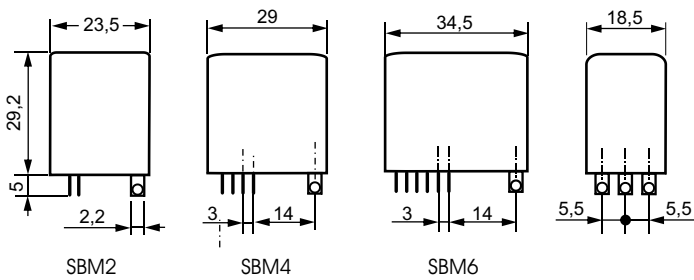
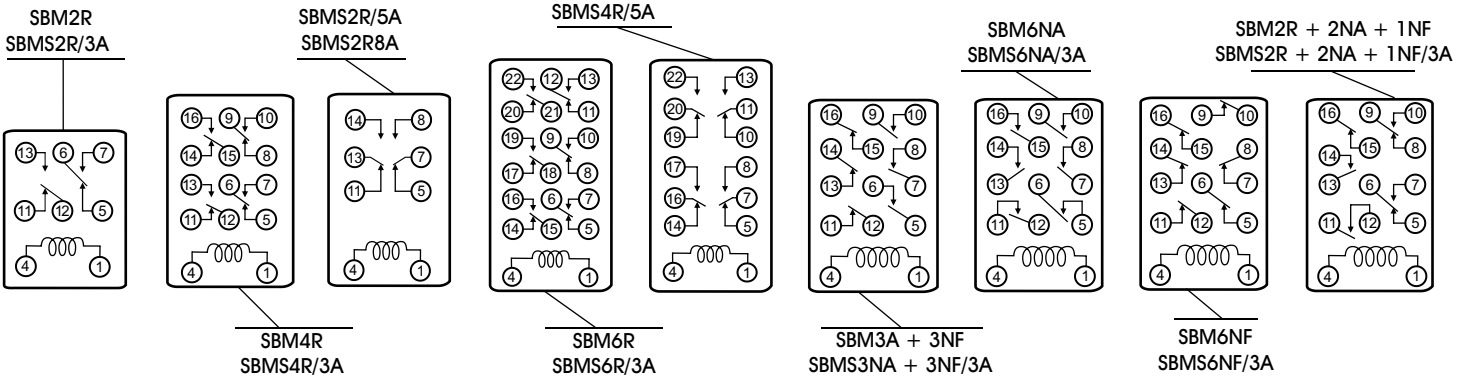
Lâminas bifurcadas - 2A Bifurcated blades - 2A	Lâminas Simples - 3A Simple blades - 3A	Bobina / Coil			Contatos / Contacts
		VCC VDC	mA	Ω $\pm 10\%$ (20°C)	
SBM2RCTR400 SBM2RCTR900	SBMS2RCTR400/3A SBMS2RCTR900/3A	8-18 12-24	20 14	400 900	2 reversíveis DPDT
SBM4RCTR400 SBM4RCTR900	SBMS4RCTR400/3A SBMS4RCTR900/3A	12-18 15-24	30 17	400 900	4 reversíveis 4PDT

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Tipos de contatos e terminais / Contact and terminal types

- 1 = Lâmina bifurcada / Bifurcated blade
- 2 = Lâmina simples / Simple blade
- 3 = Terminal para circuito impresso tipo CI / CI type PC terminal
- 4 = Terminal para circuito impresso tipo CIC / CIC type PC terminal
- 5 = Terminal para soquete / Socket terminal

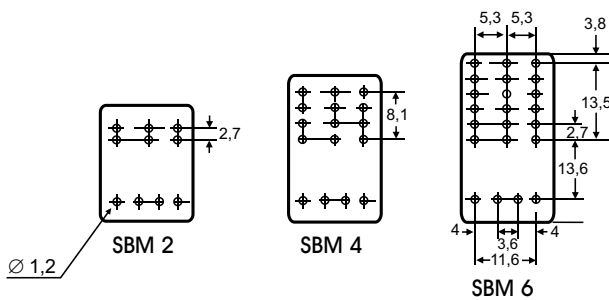


Dimensões / Dimensions: mm
Tolerância / Tolerance: $\pm 0,3$ mm

CAPACIDADE MÁXIMA DE COMUTAÇÃO EM CC / MAXIMUM SWITCHING CAPACITY FOR DC LOADS

ACC - ADC				VCC VDC
SBM	SBMS/3A	SBMS/5A	SBMS/8A	
2	3	5	8	28
1	1,5	2,5	4	40
0,4	0,6	1	1,6	58
0,2	0,3	0,5	0,8	80
0,14	0,21	0,35	0,56	96
0,10	0,15	0,25	0,40	115
0,08	0,12	0,20	0,32	130
0,06	0,09	0,15	0,24	150

Relés SBM com terminais para circuito impresso tipo CIC (vistos por baixo):
SBM relays with CIC type PC terminals (bottom view):



Relés SBM com terminais para circuito impresso tipo -CI:
SBM relays with -CI type PC Terminals:

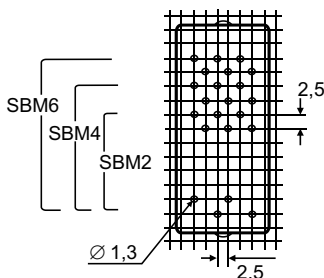
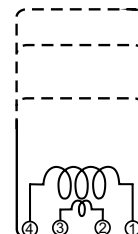


TABELA DE SOQUETES / SOCKETS TABLE

Modelo do relé Relay type	Terminal CI PCB terminal	Terminal para solda Soldering terminal
SBM2R SBMS2R/3A	SBM2CI	SBM2T
SBM4R SBMS4R/3A	SBM4CI	SBM4T
SBMS2R/5A SBMS2R/8A	SBM25CI	SBM25T
SBMS6R SBM6R/3A	SBM6CI	SBM6T
SBMS4R/5A	SBM45CI	SBM45T
SBM3NA + 3NF SBM3NA + 3NF SBM6NA SBMS6NA/3A SBM2R + 2NA + 1NF SBMS2R + 2NA + 1NF/3A SBM6NF SBMS6NF/3A	SBM4CI	SBM4T

No caso de soquetes para relés /BD,
acrescentar ao código do soquete o sufixo "/BD"
Sockets for /BD relays, please add "/BD" suffix to socket code

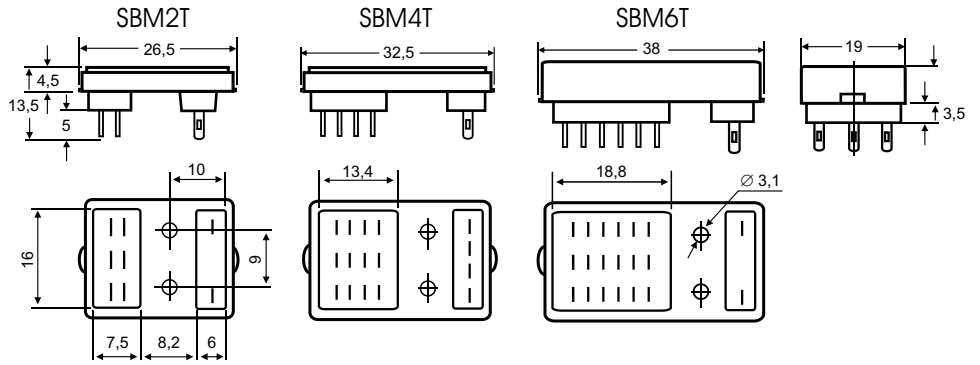


Relés SBM com bobina dupla
Double coil SBM relays

SBM

SBM2T / SBM4T / SBM6T

- Terminais para solda fio
- Wire solder terminals



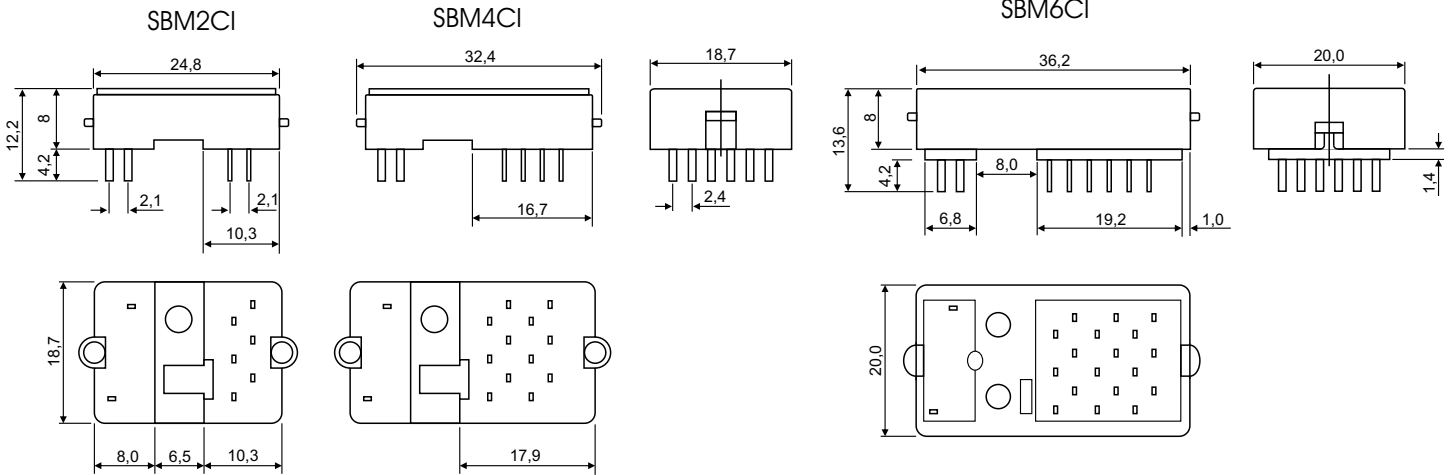
SBM2CI / SBM4CI / SBM6CI

- Terminais para circuito impresso
- PCB terminals

Tolerância / Tolerance: $\pm 0,5\text{mm}$
Dimensões / Dimensions: mm

Obs.:

- Acrescentando /BD ao código do soquete, serão fornecidos os pinos 2 e 3
- Adding /BD to the socket code, these are supplied with pins 2 and 3



SBM25T

- Terminais para solda fio
- Wire solder terminals

SBM25CI

- Terminais para circuito impresso
- PCB terminals

Uso com relé SBMS2/5A e SBMS2/8A, os soquetes têm dimensões iguais aos soquetes SBM4T e SBM4CI, porém somente com os terminais: 1, 4, 5, 7, 8, 11, 13 e 14.

These sockets have the same dimensions as SBM4T and SBM4CI sockets but are supplied with terminals 1, 4, 5, 7, 8, 11, 13 and 14 only.

SBM45T

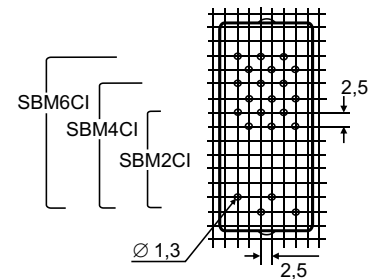
- Terminais para solda fio
- Wire solder terminals

SBM45CI

- Terminais para circuito impresso
- PCB terminals

Uso com relé SBMS4/5A, os soquetes tem dimensões iguais aos soquetes SBM6T e SBM6CI, porém somente com os terminais: 1, 4, 5, 7, 8, 10, 11, 13, 14, 16, 17, 19, 20 e 22.

These sockets have the same dimensions as SBM6T and SBM6CI sockets but are supplied with terminals 1, 4, 5, 7, 8, 11, 13, 14, 16, 17, 19, 20 and 22 only.



- Os soquetes SBM são usados com os relés SBM e SBMS
- The SBM sockets are suitable with relays SBM and SBMS

Tolerância / Tolerance: $\pm 0,2\text{mm}$
Dimensões / Dimensions: mm