

## Small-Signal High-Voltage Schottky Barrier Diodes (1)

Sanyo Schottky barrier diodes (SBD) have been developed by our original technology. They are available for making sets smaller in size and lighter in weight.

Sanyo small-signal SBDs with breakdown voltages of 15V, 30V, 50V, 90V, 150V, and 180V can be applied to various uses.

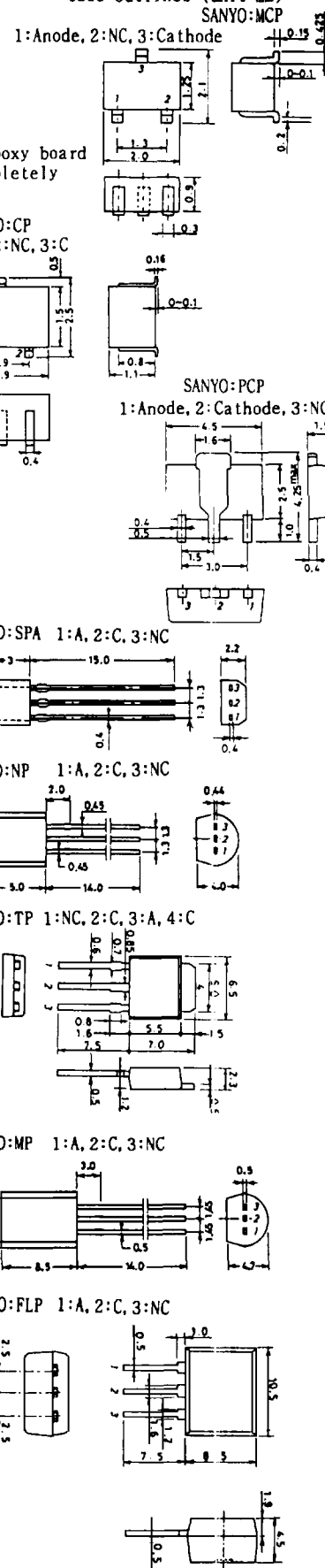
### Features

- \* Very low forward voltage. (VF max)
- \* Fast reverse recovery time. (trr max)
- \* Low switching noise.
- \* Low leakage current and high reliability due to highly reliable planar structure.
- \* Small-sized package, permitting applied sets to be compact and slim.

### Applications

- \* Universal use rectifier.
- \* High frequency rectification (switching regulators, converters, choppers)

### Case Outlines (unit:mm)



### Single Type

※: Mounted on ceramic board (250mm<sup>2</sup> X 0.8mm) ☆: Mounted on Cu foil (16mm<sup>2</sup> X 0.2mm) on glass epoxy board  
 0: Refer to the individual catalogue of each product because the center part of PCP outline is completely different.

\*IFSM: 50Hz sine wave 1 cycle.

Type No. ( ): Marking	Package	Absolute Maximum Ratings/Ta=25°C			Electrical Characteristics/Ta=25°C						
		V <sub>RRM</sub> (V)	I <sub>O</sub> (A)	*I <sub>FSM</sub> (A)	I <sub>F</sub> (A)	V <sub>F</sub> max *(2) value (V)	V <sub>R</sub> (V)	I <sub>R</sub> max (μA)	I <sub>F</sub> (A)	t <sub>rr</sub> max (nS)	R <sub>thj-a</sub> *(2) typ (°C/W)
<b>15V Series</b>											
SB07-015C(R)	C P	15	0.7	5	0.1	0.55 *(0.42)	7.5	20	0.1	10	560
SB10-015C(S)			1	5	0.1	0.55 *(0.40)	7.5	50	0.1	10	420
SB10-015P(SI)	P C P	15	1	8	0.1	0.55 *(0.40)	7.5	50	0.1	10	※120
<b>30V Series</b>											
SB007-03Q(G)	M C P	30	0.07	2	0.07	0.55	15	5	0.01	10	-
SB02-03Q(H)			0.2	2	0.2			15	0.01	10	-
SB05-03Q(Q)			0.5	3	0.5			30	0.1	10	600
SB007-03CP(G)	C P	30	0.07	2	0.07	0.55	15	5	0.01	10	☆430
SB02-03C(H)			0.2	2	0.2			15	0.01	10	☆380
SB05-03C(Q)			0.5	5	0.5			30	0.1	10	560
SB07-03C(J)			0.7	5	0.7			80	0.1	10	☆330
SB07-03P(SD)	P C P	30	0.7	5	0.7	0.55	15	80	0.1	10	※120
SB20-03P(SC)			2	20	2			100	0.1	20	※110
SB30-03P(SG)0			3	10	3			200	0.3	30	※100
SB007-03SPA	S P A	30	0.07	2	0.07	0.55	15	5	0.01	10	450
SB02-03S			0.2	2	0.2			15	0.01	10	370
SB07-03N	N P	30	0.7	5	0.7	0.55	15	80	0.1	10	165
SB30-03T	T P	30	3	20	3	0.55	15	200	0.3	30	90
SB40-03T			4	40	4			200	0.3	30	90
SB30-03Z	F L P	30	3	20	3	0.55	15	200	0.3	30	75
SB20-03B	T0-126	30	2	20	2	0.55	15	100	0.1	20	*7
SB20-03E	T0-126ML	30	2	20	2	0.55	15	100	0.1	20	*7
<b>50V Series</b>											
SB01-05Q(A)	M C P	50	0.1	2	0.1	0.55	25	15	0.01	10	-
SB01-05CP(A)	C P	50	0.1	2	0.1	0.55	25	15	0.01	10	☆410
SB05-05CP(B)			0.5	5	0.5			50	0.1	10	☆330
SB05-05P(SB)	P C P	50	0.5	5	0.5	0.55	25	50	0.1	10	※120
SB10-05PCP(SA)			1	10	1			80	0.1	10	※110
SB20-05P(SH)0			2	10	2			200	0.3	20	※100
SB01-05SPA	S P A	50	0.1	2	0.1	0.55	25	15	0.01	10	300
SB05-05NP	N P	50	0.5	5	0.5	0.55	25	50	0.1	10	165
SB20-05T	T P	50	2	20	2	0.55	25	200	0.3	20	90
SB10-05	M P	50	1	10	1	0.55	25	80	0.1	10	110
SB20-05Z	F L P	50	2	20	2	0.55	25	200	0.3	20	75

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## Small-Signal High-Voltage Schottky Barrier Diodes (2)

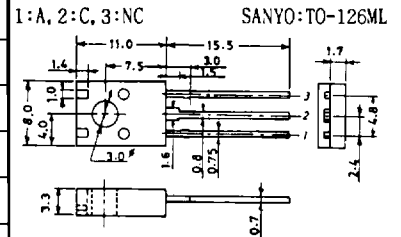
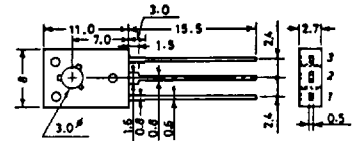
### Single Type

※: Mounted on ceramic board (250mm<sup>2</sup> × 0.8mm) ☆: Mounted on Cu foil (16mm<sup>2</sup> × 0.2mm) on glass epoxy board  
 ⓪: Refer to the individual catalogue of each product because the center part of PCP outline is completely different.

Case Outlines(unit:mm)  
 SANYO:TO-126  
 1:Anode, 2:Cathode  
 3:NC

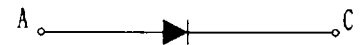
★IFSM: 50Hz sine wave 1 cycle.

Type No. ( ):Marking	Package	Absolute Maximum Ratings/Ta=25°C			Electrical Characteristics/Ta=25°C							
		V <sub>RRM</sub> (V)	I <sub>O</sub> (A)	★I <sub>FSM</sub> (A)	I <sub>F</sub> (A)	V <sub>Fmax</sub> *(2) value (V)	V <sub>R</sub> (V)	I <sub>Rmax</sub> (μA)	I <sub>F</sub> (A)	t <sub>rrmax</sub> (nS)	R <sub>thj-a</sub> *(1) typ (°C/W)	
<b>90V Series</b>												
SB005-09CP(C) SB02-09CP(D)	C P	90	0.05	2	0.05	0.7	45	15	0.01	10	★410	
			0.2	5	0.2				50	0.1	10	★330
SB10-09P(SJ)⓪	P C P		1	5	1				200	0.1	20	※100
SB005-09SPA	S P A		0.05	2	0.05				15	0.01	10	300
SB02-09NP	N P		0.2	5	0.2				50	0.1	10	165
SB10-09T	T P		1	10	1				200	0.1	20	90
SB05-09	M P	0.5	10	0.5		80	0.1	10	110			
<b>150V Series</b>												
SB002-15CP(E) SB01-15CP(F)	C P	150	0.02	2	0.02	0.75	75	15	0.01	10	★410	
			0.1	5	0.1				50	0.1	10	★330
SB002-15SPA	S P A		0.02	2	0.02				15	0.01	10	300
SB01-15NP	N P		0.1	5	0.1				50	0.1	10	165
SB02-15	M P	0.2	10	0.2		80	0.1	10	110			



Electrode connection

Single type



### Twin Type (Value per element.)

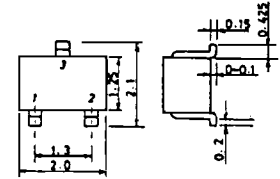
※: Mounted on ceramic board (250mm<sup>2</sup> × 0.8mm) ☆: Mounted on Cu foil (16mm<sup>2</sup> × 0.2mm) on glass epoxy board  
 ⓪: Refer to the individual catalogue of each product because the center part of PCP outline is completely different.

★IFSM: 50Hz sine wave 1 cycle.

Type No. ( ):Marking	Package	Absolute Maximum Ratings/Ta=25°C			Electrical Characteristics/Ta=25°C							
		V <sub>RRM</sub> (V)	I <sub>O</sub> (A)	★I <sub>FSM</sub> (A)	I <sub>F</sub> (A)	V <sub>Fmax</sub> (V)	V <sub>R</sub> (V)	I <sub>Rmax</sub> (μA)	I <sub>F</sub> (A)	t <sub>rrmax</sub> (nS)	R <sub>thj-a</sub> *(1) typ (°C/W)	
<b>30V Series</b>												
SB007W03Q(K)	M C P	30	0.07	2	0.07	0.55	15	5	0.01	10	-	
SB007W03C(K) SB02W03C(L)	C P		0.07	2	0.07				5	0.01	10	★430
			0.2	2	0.2				15	0.01	10	★380
SB07W03P(SF) SB20W03P(SK)⓪	P C P		0.7	5	0.7				50	0.1	10	※110
			2	20	2				100	0.1	20	※110
SB007W03S SB02W03S	S P A		0.07	2	0.07				5	0.01	10	450
			0.2	2	0.2				15	0.01	10	370
SB20W03T SB30W03T SB40W03T	T P		2	20	2				100	0.1	20	90
			3	20	3				200	0.3	30	90
			4	80	4				200	0.3	30	90
SB07W03V SB20W03V SB30W03V	N M P		0.7	5	0.7				50	0.1	10	120
			2	20	2				100	0.1	20	110
		3	20	3		200	0.3	30	110			
SB20W03Z SB30W03Z	F L P	2	20	2		100	0.1	20	75			
		3	20	3		200	0.3	30	70			

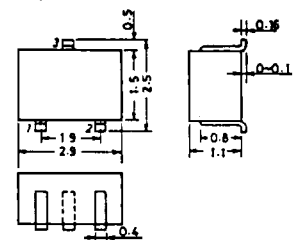
1, 2: Anode, 3: Cathode

SANYO:MCP



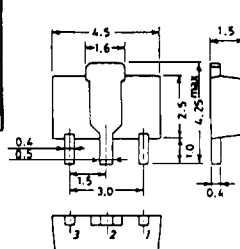
1, 2: A, 3: C

SANYO:CP



1, 3: Anode, 2: Cathode

SANYO:PCP



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