

## Rochester Electronics Manufactured Components

Rochester branded components are manufactured using either die/wafers purchased from the original suppliers or Rochester wafers recreated from the original IP. All recreations are done with the approval of the OCM.

Parts are tested using original factory test programs or Rochester developed test solutions to guarantee product meets or exceed the OCM data sheet.

## Quality Overview

- ISO-9001
- AS9120 certification
- Qualified Manufacturers List (QML) MIL-PRF-35835
  - Class Q Military
  - Class V Space Level
- Qualified Suppliers List of Distributors (QSLD)
  - Rochester is a critical supplier to DLA and meets all industry and DLA standards.

Rochester Electronics, LLC is committed to supplying products that satisfy customer expectations for quality and are equal to those originally supplied by industry manufacturers.

The original manufacturer's datasheet accompanying this document reflects the performance and specifications of the Rochester manufactured version of this device. Rochester Electronics guarantees the performance of its semiconductor products to the original OEM specifications. 'Typical' values are for reference purposes only. Certain minimum or maximum ratings may be based on product characterization, design, simulation, or sample testing.

# IGBT Standard Modules

Type	V <sub>CES</sub> V	I <sub>C</sub> A	R <sub>thJC</sub> K/W ≤	P <sub>tot</sub> W	V <sub>CEsat</sub> V	outline
<b>600V-Types</b>						
<b>3-Phase-Full-Bridges</b>						
BSM 10 GD 60 DLC	600	6 x 10	3.5	30	2.1	IS1
BSM 15 GD 60 DLC	600	6 x 15	2.9	35	2.1	IS1
BSM 20 GD 60 DLC	600	6 x 20	1.6	80	2.1	IS2
BSM 20 GD 60 DLC E3224	600	6 x 20	1.6	80	2.1	IS3
BSM 30 GD 60 DLC	600	6 x 30	1.2	100	2.1	IS2
BSM 30 GD 60 DLC E3224	600	6 x 30	1.2	100	2.1	IS3
BSM 50 GD 60 DLC	600	6 x 50	0.6	200	2.1	IS3
BSM 50 GD 60 DLC E3226	600	6 x 50	0.6	200	2.1	IS2
BSM 75 GD 60 DLC	600	6 x 75	0.44	280	2.1	IS3
BSM 100 GD 60 DLC	600	6 x 100	0.35	350	2.1	IS8
BSM 150 GD 60 DLC	600	6 x 150	0.24	500	2.1	IS8
BSM 200 GD 60 DLC	600	6 x 200	0.18	700	2.1	IS8
<b>Half-Bridges</b>						
BSM 50 GB 60 DLC	600	2 x 50	0.6	200	2.1	IS4
BSM 75 GB 60 DLC	600	2 x 75	0.44	280	2.1	IS4
BSM 100 GB 60 DLC	600	2 x 100	0.35	350	2.1	IS4
BSM 150 GB 60 DLC	600	2 x 150	0.24	500	2.1	IS4
BSM 200 GB 60 DLC	600	2 x 200	0.18	700	2.1	IS4
<b>1200V-Types</b>						
<b>3-Phase-Full-Bridges</b>						
BSM 10 GD 120 DN 2	1200	6 x 10	1.52	80	2.7	IS2
BSM 10 GD 120 DN 2 E3224	1200	6 x 10	1.52	80	2.7	IS3
BSM 15 GD 120 DN 2	1200	6 x 15	0.86	145	2.5	IS2
BSM 15 GD 120 DN 2 E3224	1200	6 x 15	0.86	145	2.5	IS3
BSM 15 GD 120 D 2	1200	6 x 15	0.86	145	2.5	IS7
BSM 15 GD 120 DLC / E3224	1200	6 x 15	0.86	145	2.5	IS7
BSM 25 GD 120 DN 2	1200	6 x 25	0.6	200	2.5	IS2
BSM 25 GD 120 DN 2 E3224	1200	6 x 25	0.6	200	2.5	IS3
BSM 25 GD 120 D 2	1200	6 x 25	0.6	200	2.5	IS7
BSM 25 GD 120 DLC / E3224	1200	6 x 25	0.6	200	2.5	IS7
BSM 35 GD 120 DN 2	1200	6 x 35	0.44	280	2.7	IS2
BSM 35 GD 120 DN 2 E3224	1200	6 x 35	0.44	280	2.7	IS3
BSM 35 GD 120 D2	1200	6 x 35	0.44	280	2.7	IS7
BSM 35 GD 120 DLC	1200	6 x 35	0.44	280	2.7	IS2
BSM 35 GD 120 DLC / E3224	1200	6 x 35	0.44	280	2.2	IS3
BSM 50 GD 120 DN 2	1200	6 x 50	0.35	350	2.5	IS3
BSM 50 GD 120 DN 2 E3226	1200	6 x 45	0.35	350	2.5	IS2
BSM 50 GD 120 DLC / E3226	1200	6 x 50	0.35	350	2.2	IS2
BSM 50 GD 120 DN 2 G	1200	6 x 50	0.35	400	2.5	IS8
BSM 75 GD 120 DN 2	1200	6 x 75	0.239	500	2.5	IS8
BSM 75 GD 120 DLC	1200	6 x 75	0.24	520	2.2	IS8
BSM 100 GD 120 DN 2	1200	6 x 100	0.182	500	2.5	IS8
BSM 100 GD 120 DLC	1200	6 x 100	0.182	680	2.2	IS8
<b>Tripack</b>						
BSM 100 GT 120 DN 2	1200	3 x 100	0.182	500	2.5	IS9
BSM 150 GT 120 DN 2	1200	3 x 150	0.239	500	2.5	IS9
BSM 150 GT 120 DLC	1200	3 x 100	0.182	500	2.2	IS9
BSM 200 GT 120 DN 2	1200	3 x 200	0.182	500	2.5	IS9
BSM 200 GT 120 DLC	1200	3 x 200	0.182	500	2.2	IS9

Type	V <sub>CES</sub> V	I <sub>C</sub> A	R <sub>thJC</sub> K/W ≤	P <sub>tot</sub> W	V <sub>CEsat</sub> V	outline
<b>1200V-Types continued</b>						
<b>Half-Bridges</b>						
BSM 25 GB 120 DN 2	1200	2 x 25	0.6	200	2.5	IS4
BSM 35 GB 120 DN 2	1200	2 x 35	0.44	280	2.7	IS4
BSM 35 GB 120 DLC	1200	2 x 35	0.44	280	2.2	IS4
BSM 50 GB 120 DN 2	1200	2 x 50	0.3	400	2.5	IS4
BSM 50 GB 120 DLC	1200	2 x 50	0.35	350	2.2	IS4
BSM 75 GB 120 DN 2	1200	2 x 75	0.2	625	2.5	IS4
BSM 75 GB 120 DLC	1200	2 x 75	0.24	520	2.2	IS4
BSM 100 GB 120 DN 2 K	1200	2 x 100	0.18	700	2.5	IS4
BSM 100 GB 120 DN 2	1200	2 x 100	0.16	800	2.5	IS5
BSM 100 GB 120 DLC	1200	2 x 100	0.16	780	2.1	IS5
BSM 150 GB 120 DN 2	1200	2 x 150	0.1	1250	2.5	IS5
BSM 150 GB 120 DLC	1200	2 x 150	0.1	1200	2.1	IS5
BSM 200 GB 120 DN 2	1200	2 x 200	0.095	1400	2.5	IS5
BSM 200 GB 120 DLC	1200	2 x 200	0.09	1300	2.1	IS5
BSM 300 GB 120 DLC	1200	2 x 300	0.05	2500	2.5	IS5
<b>Choppers</b>						
BSM 25 GAL 120 DN 2	1200	50	0.6	200	2.5	IS4
BSM 50 GAL 120 DN 2	1200	50	0.3	400	2.5	IS4
BSM 75 GAL 120 DN 2	1200	75	0.2	625	2.5	IS4
BSM 75 GAR 120 DN 2	1200	75	0.2	625	2.5	IS4
BSM 100 GAL 120 DN 2	1200	100	0.16	800	2.5	IS5
BSM 100 GAR 120 DN 2	1200	100	0.16	800	2.5	IS5
BSM 150 GAL 120 DN 2	1200	150	0.1	1250	2.5	IS5
BSM 150 GAR 120 DN 2	1200	150	0.1	1250	2.5	IS5
BSM 200 GAL 120 DN 2	1200	200	0.09	1400	2.5	IS5
BSM 200 GAR 120 DN 2	1200	200	0.09	1400	2.5	IS5
BSM 300 GAL 120 DLC	1200	300	0.05	2500	2.2	IS5
BSM 300 GAR 120 DLC	1200	300	0.05	2500	2.2	IS5
<b>Single Switches</b>						
BSM 200 GA 120 DN 2	1200	200	0.08	1550	2.5	IS6
BSM 200 GA 120 DN 2 S	1200	200	0.08	1550	2.5	IS10
BSM 200 GA 120 DLC	1200	200	0.08	1550	2.2	IS6
BSM 200 GA 120 DLC S	1200	200	0.08	1550	2.2	IS10
BSM 300 GA 120 DN 2	1200	300	0.05	2500	2.5	IS6
BSM 300 GA 120 DN 2 S	1200	300	0.05	2500	2.5	IS10
BSM 300 GA 120 DN 2 E3166	1200	300	0.05	2500	2.5	IS6
BSM 300 GA 120 DLC	1200	300	0.05	2500	2.2	IS6
BSM 300 GA 120 DLC S	1200	300	0.05	2500	2.2	IS10
BSM 400 GA 120 DN 2	1200	400	0.045	2800	2.5	IS6
BSM 400 GA 120 DN 2 S	1200	400	0.045	2800	2.5	IS10
BSM 400 GA 120 DLC	1200	400	0.045	2700	2.2	IS6
BSM 400 GA 120 DLC S	1200	400	0.045	2700	2.2	IS10
<b>Single Diode</b>						
BYM 300 A 120 DN 2	1200	300	0.125	1000	2.3	IS6

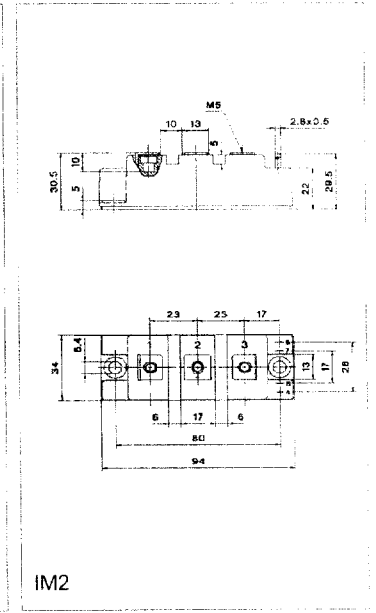
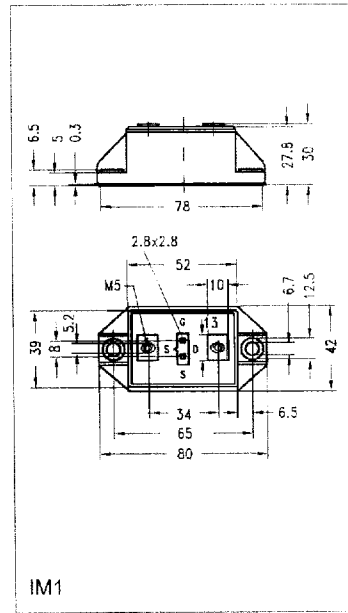
# IGBT Standard Modules

continued

Type	V <sub>CES</sub> V	I <sub>C</sub> A	R <sub>thJC</sub> K/W ≤	P <sub>tot</sub> W	V <sub>CEsat</sub> V	outline
<b>1700V-Types</b>						
<b>3-Phase-Full-Bridges</b>						
BSM 50 GD 170 DL	1700	6x50	0,27	480	2,7	IS8
BSM 75 GD 170 DL	1700	6x75	0,20	625	2,7	IS8
<b>Tripack</b>						
BSM 100 GT 170 DL	1700	3x100	0,13	960	2,7	IS9
BSM 150 GT 170 DL	1700	3x150	0,10	1250	2,7	IS9
<b>Half-Bridges</b>						
BSM 50 GB 170 DN 2	1700	2 x 50	0,25	500	3,5	IS4
BSM 75 GB 170 DN 2	1700	2 x 75	0,2	625	3,5	IS4
BSM 100 GB 170 DN 2	1700	2x100	0,13	1000	3,5	IS5
BSM 100 GB 170 DL	1700	2x100	0,13	960	2,7	IS5
BSM 150 GB 170 DN 2	1700	2x150	0,1	1250	3,5	IS5
BSM 150 GB 170 DL	1700	2x150	0,1	1250	2,7	IS5
BSM 150 GB 170 DN 2 E3166	1700	2x150	0,1	1250	3,5	IS5
BSM 200 GB 170 DL	1700	2x200	0,075	1660	2,7	IS5
<b>Single Switches</b>						
BSM 200 GA 170 DN 2	1700	200	0,07	1750	3,5	IS6
BSM 200 GA 170 DN 2 S	1700	200	0,07	1750	3,5	IS10
BSM 200 GA 170 DL	1700	200	0,065	1920	2,7	IS6
BSM 200 GA 170 DLS	1700	200	0,065	1920	2,7	IS10
BSM 300 GA 170 DN 2	1700	300	0,05	2500	3,5	IS6
BSM 300 GA 170 DN 2 S	1700	300	0,05	2500	3,5	IS10
BSM 300 GA 170 DN 2 E3166	1700	300	0,05	2500	3,5	IS6
BSM 300 GA 170 DL	1700	300	0,05	2500	2,7	IS6
BSM 300 GA 170 DLS	1700	300	0,05	2500	2,7	IS10
BSM 400 GA 170 DL	1700	400	0,04	3120	2,7	IS6
BSM 400 GA 170 D2S	1700	400	0,04	3120	2,7	IS6
<b>Single Diodes</b>						
BYM 300 A 170 DN 2	1700	250	0,15	830	2,3	IS11
BYM 600 A 170 DN 2	1700	400	0,09	1400	2,3	IS11

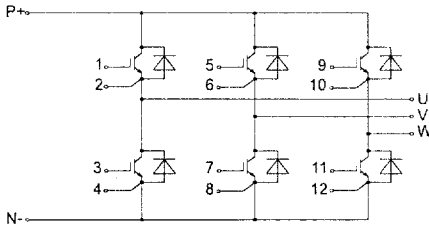
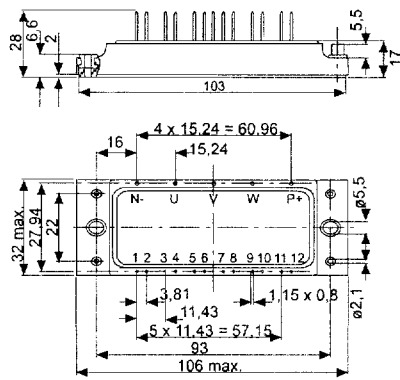
# Mosfet Modules

Type	V <sub>DS</sub> V	I <sub>D</sub> A	R <sub>DS(on)</sub> mΩ	outline
<b>Single Switches</b>				
BSM 101 AR	50	200	3	IM1
BSM 111 AR	100	200	8,5	IM1
BSM 181 AR	800	36	20	IM1
<b>Half Bridges</b>				
BSM 204 A	50	2 x 200	4,5	IM2
BSM 214 A	100	2 x 125	13	IM2
BSM 224 A	200	2 x 80	30	IM2
BSM 225 A	200	2 x 120	17,5	IM2



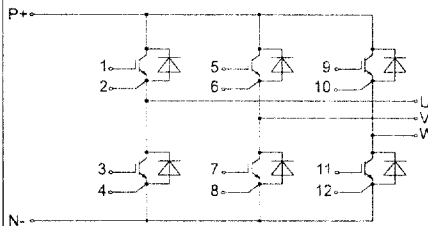
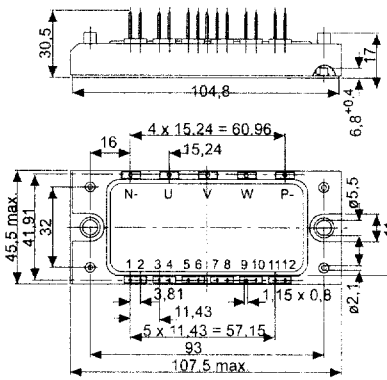
# IGBT Standard Modules

## Econo 1



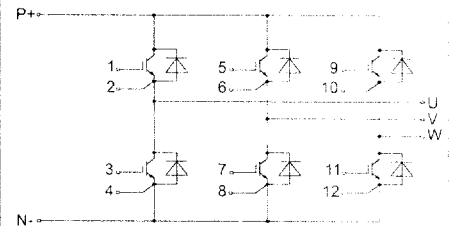
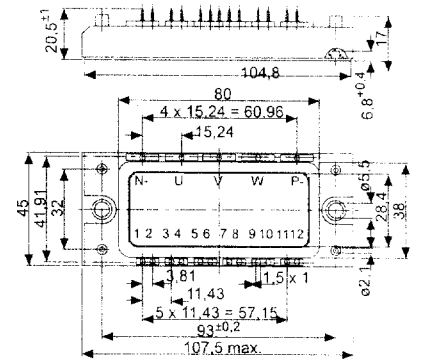
IS1

## Econo 2 (longpin)



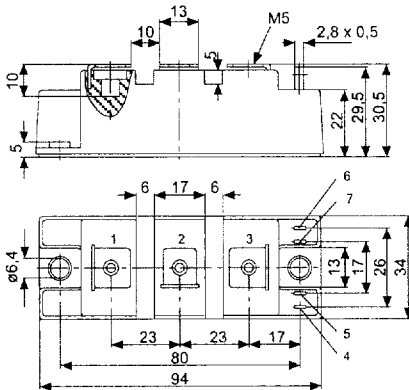
IS2

## Econo 2 (shortpin)

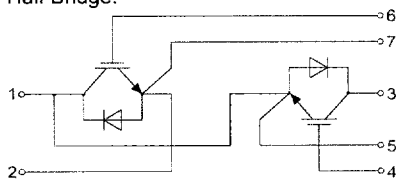


IS3

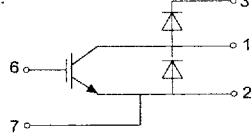
## Half Bridge 34



Half Bridge:

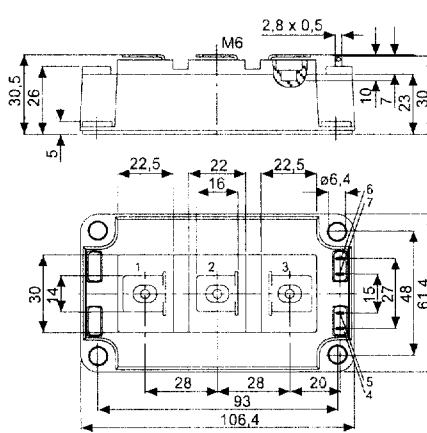


Chopper:

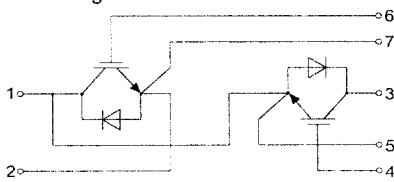


IS4

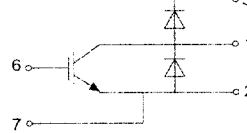
## Half Bridge 62



Half Bridge:

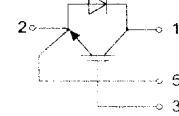
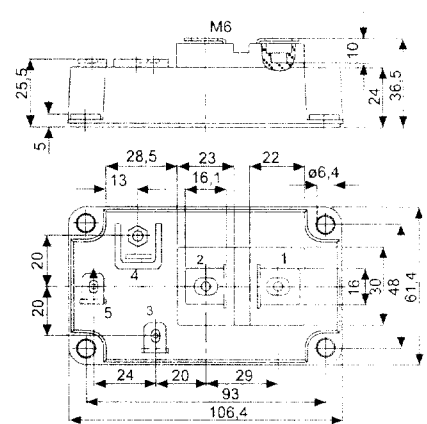


Chopper:



IS5

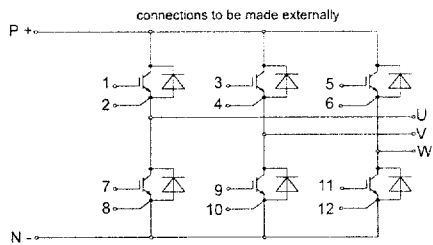
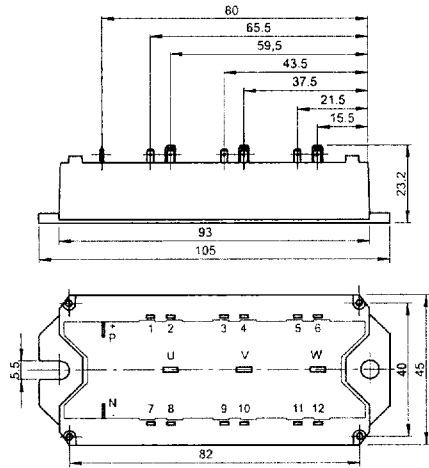
## Single Switch 62



IS6

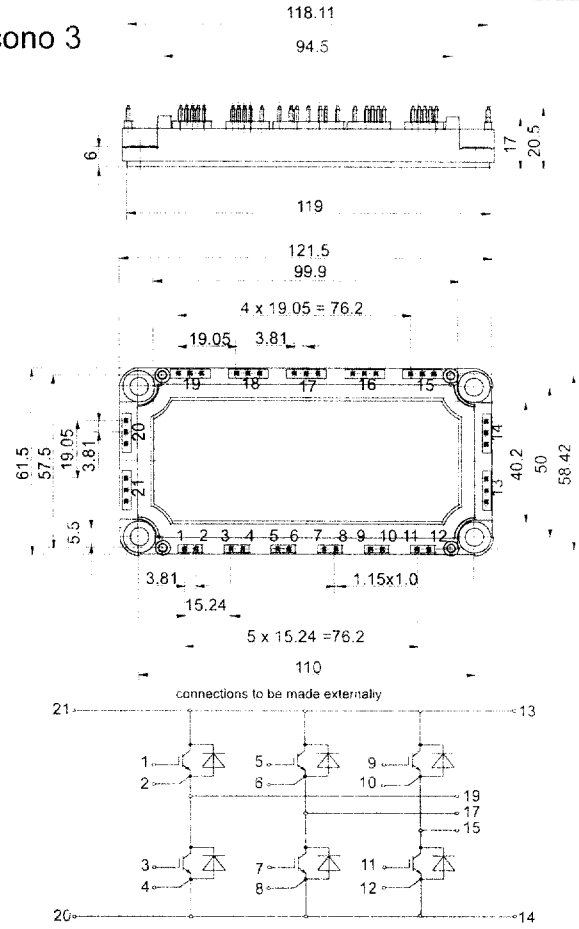
# IGBT Standard Modules

## Sixpack



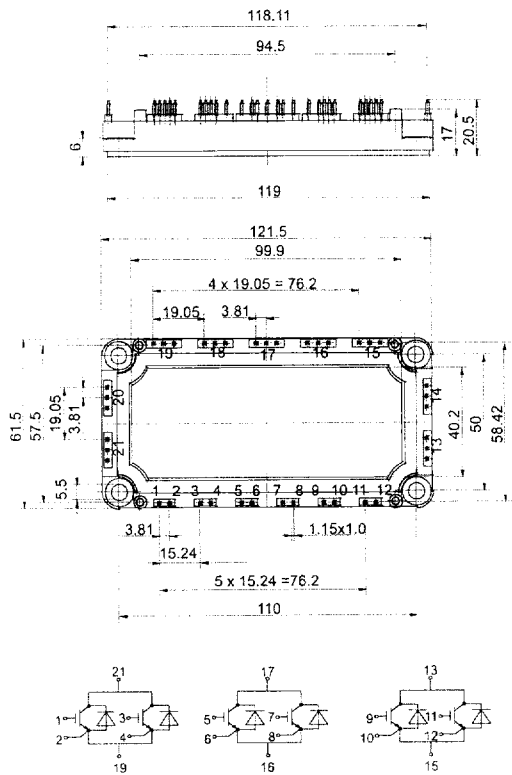
IS7

## Econo 3



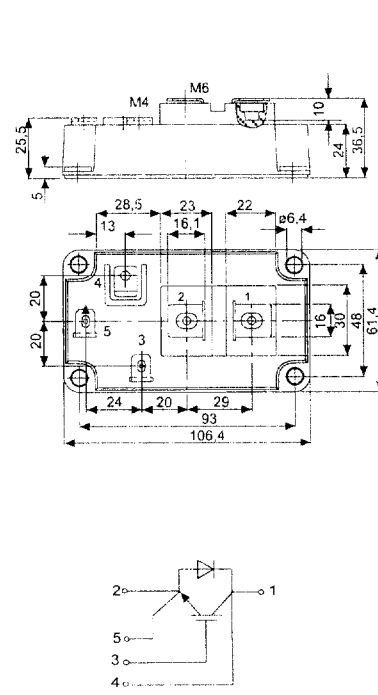
IS8

## Econo 3 Tripack



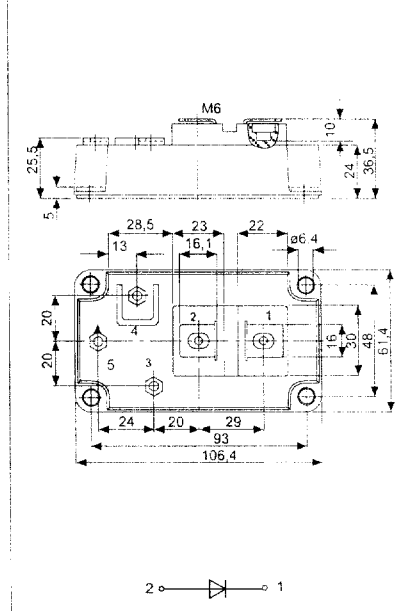
IS9

## Single Switch 62, collector sense



IS10

## Single Diode 62



IS11