

EasyPIM

600 V-1200 V																
Type		IGBT Inverter						Rectifier Diodes					Brake Chopper			Outline / page
		V _{CES} V	I _C A @ 80°C	I _C A @ 25°C	V _{CEsat} V	P _{tot} W	R _{thJC} K/W	V _{RRM} V	I _d A	R _{thJC} K/W	V _{to} V T _{vj} = 150°C	r _T mΩ	V _{CES} V	I _{C, IGBT} A @ 80°C	R _{thJC} K/W	
	Low Loss 2. Generation															
	◆ FB6R06VL4	600	6	11	1,95	50	2,5	800	10	2,1	0,67	21				IS15/64
	◆ FB10R06VL4	600	10	15	1,95	55	2,5	800	10	2,1	0,67	21				IS15/64
	FB10R06KL4	600	10	15	1,95	55	2,2	800	10	2,4	0,67	21				IS16/64
	FB10R06KL4G	600	10	15	1,95	55	2,2	800	10	2,4	0,67	21				IS17/65
	FB10R06KL4G_B1	600	10	15	1,95	55	2,2	800	10	2,4	0,67	21	600	10	2,2	IS17/65
	FP10R06KL4	600	10	15	1,95	55	2,2	800	10	2,4	0,67	21	600	10	2,2	IS17/65
	FP10R06KL4_B3	600	10	15	1,95	55	2,2	800	10	2,4	0,67	21				IS17/65
	FB15R06KL4	600	15*	19	1,95	60	2,0	800	15*	1,0	0,61	11				IS17/65
	FB15R06KL4_B1	600	15*	19	1,95	60	2,0	800	15*	1,0	0,61	11	600	15*	2,0	IS17/65
	FP15R06KL4	600	15*	19	1,95	60	2,0	800	15*	2,4	0,71	18	600	15*	2,0	IS17/65
	FB20R06KL4	600	20*	25	1,95	80	1,6	800	20*	1,0	0,63	10				IS17/65
	FB20R06KL4_B1	600	20*	25	1,95	78	1,6	800	20*	1,0	0,63	10	600	20*	1,6	IS17/65
	FP20R06KL4	600	20*	25	1,95	78	1,6	800	20*	2,0	0,71	12	600	20*	1,6	IS17/65
	IGBT 3															
	FP10R12KE3	1200	10	15	1,9	55	2,2	1600	10	1,9	0,78	17	1200	10	2,2	IS17/65
	FP10R12YT3	1200	10	15	1,9	55	2,2	1600	10	1,9	0,78	17	1200	10	2,2	IS17/65
	◆ FP15R12KE3	1200	15	27	1,7	89	1,4	1600	15	1,9	0,8	15	1200	15	1,4	IS17/65
	◆ FP15R12YT3	1200	15	27	1,7	89	1,4	1600	15	1,9	0,8	10,5	1200	15	1,4	IS17/65

♦ New type

* as specified in data sheet

Mounting Hardware see page 95.

IGBT

SCR/Diode Modules

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EasyPACK

600 V-1200 V		IGBT Inverter						Outline / page
Type		V_{CES} V	I_C A @ 80°C	I_C A @ 25°C	V_{CESat} V	P_{tot} W	R_{thJC} K/W	
	Low Loss 2. Generation							
	◆ FS6R06VL4	600	6	11	on request	on request	on request	IS15/64
	◆ FS6R06VL4_B2	600	6	11	on request	on request	on request	IS15/64
	◆ FS10R06VL4	600	10	15	1,95	69	1,8	IS15/64
	◆ FS10R06VL4_B2	600	10	16	1,95	69	1,8	IS15/64
	FS10R06XL4	600	10	16	1,95	69	1,8	IS16/64
	◆ FS15R06VL4	600	15*	20	on request	on request	on request	IS15/64
	◆ FS15R06VL4_B2	600	15*	20	on request	on request	on request	IS15/64
	FS15R06XL4	600	15*	20	1,95	81	1,55	IS16/64
	◆ FS20R06VL4	600	20*	26	on request	on request	on request	IS15/64
	FS20R06XL4	600	20*	26	1,95	89	1,4	IS16/64
	FS30R06XL4	600	30*	35	1,95	119	1,05	IS16/64
	FS50R06YL4	600	50*	55	1,95	202	0,62	IS17/65
	IGBT 3							
	◆ FS10R12YT3	1200	10	16	1,9	69	1,8	IS17/65
	◆ FS15R12YT3	1200	15	25	1,7	96	1,3	IS17/65
	◆ FS25R12YT3	1200	25	40	1,7	106	0,85	IS17/65
	◆ FS35R12YT3	1200	35*	55	1,7	202	0,62	IS17/65

◆ New type/Data preliminary

* as specified in data sheet

Mounting Hardware see page 95.

EasyBRIDGE

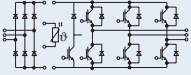
600 V-1200 V				Outline / page
Type		V_{CES} V	I_C A @ 80°C	
	Low Loss 2. Generation			
	◆ DD6BU50N06XR	600	50*	IS16/64
	IGBT 3			
	◆ DD6BU40N12XR	1200	40	IS16/64

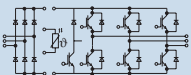
◆ New type/Data preliminary

* as specified in data sheet

Mounting Hardware see page 95.

Power Integrated Modules PIM

600 V _{CES}														
Type		IGBT Inverter				Rectifier Diodes					Brake Chopper			Outline / page
		V _{CES} V	I _C A	R _{thJC} K/W	V _{CESat} V T _{vj} = 25°C	V _{RRM} V	I _d A T _C = 80°C	R _{thJC} K/W T _{vj} = 150°C	V _{to} V T _{vj} = 150°C	r _T mΩ T _{vj} = 150°C	V _{CES} V T _C = 80°C	I _{C,IGBT} A T _C = 80°C	R _{thJC} K/W	
	BSM10GP60	600	10	1,5	1,95	1600	10	1,00	0,8	10,5	600	10	1,5	IS12/68
	BSM15GP60	600	15	1,3	1,95	1600	15	1,00	0,8	10,5	600	10	1,5	IS12/68
	BSM20GP60	600	20	1,0	1,95	1600	20	1,00	0,8	10,5	600	10	1,5	IS12/68
	BSM30GP60	600	30	0,7	1,95	1600	30	1,00	0,8	10,5	600	15	1,3	IS12/68
	BSM50GP60	600	50	0,5	1,95	1600	50	1,00	0,8	10,5	600	25	1,0	IS12/68
	BSM50GP60G	600	50	0,5	1,95	1600	50	1,00	0,8	10,5	600	25	1,0	IS13/68
	BSM75GP60	600	75	0,4	1,95	1600	75	0,65	0,8	6,5	600	37,5	0,7	IS13/68
	BSM100GP60	600	100	0,3	1,95	1600	100	0,50	0,8	4,8	600	50	0,5	IS13/68

1200 V _{CES}														
Type		IGBT Inverter				Rectifier Diodes					Brake Chopper			Outline / page
		V _{CES} V	I _C A	R _{thJC} K/W	V _{cesat} V T _{vj} = 25°C	V _{RRM} V	I _d A T _C = 80°C	R _{thJC} K/W T _{vj} = 150°C	V _{to} V T _{vj} = 150°C	r _T mΩ T _{vj} = 150°C	V _{CES} V T _C = 80°C	I _{C,IGBT} A T _C = 80°C	R _{thJC} K/W	
	BSM10GP120	1200	10	1,20	2,40	1600	10	1,00	0,8	10,5	1200	10,0	1,2	IS12/68
	BSM15GP120	1200	15	0,70	2,20	1600	15	1,00	0,8	10,5	1200	10,0	1,2	IS12/68
	BSM25GP120	1200	25	0,55	2,10	1600	25	1,00	0,8	10,5	1200	12,5	1,2	IS12/68
	BSM35GP120	1200	35	0,55	2,40	1600	35	1,00	0,8	10,5	1200	17,5	0,7	IS12/68
	BSM35GP120G	1200	35	0,55	2,40	1600	35	1,00	0,8	10,5	1200	17,5	0,7	IS13/68
	BSM50GP120	1200	50	0,35	2,20	1600	50	0,65	0,8	6,5	1200	25,0	0,55	IS13/68
	Short Tail													
	FP15R12KS4C	1200	15	0,70	3,20	1600	15	1,00	0,8	10,5	1200	10,0	1,2	IS12/68
	FP25R12KS4C	1200	25	0,55	3,20	1600	25	1,00	0,8	10,5	1200	12,5	1,2	IS12/68
	FP35R12KS4CG	1200	35	0,55	3,75	1600	35	1,00	0,8	10,5	1200	17,5	0,7	IS13/68
	FP50R12KS4C	1200	50	0,35	3,20	1600	50	0,65	0,8	6,5	1200	25,0	0,55	IS13/68
	IGBT3													
	◆ FP15R12KE3G	1200	15	1,20	1,70	1600	15	1,00	0,8	10,5	1200	10,0	1,5	IS12/68
	◆ FP25R12KE3	1200	25	0,80	1,70	1600	25	1,00	0,8	10,5	1200	15,0	1,2	IS12/68
	◆ FP40R12KE3	1200	40	0,60	1,80	1600	40	1,00	0,8	10,5	1200	15,0	1,2	IS12/68
	◆ FP40R12KE3G	1200	40	0,60	1,80	1600	40	1,00	0,8	10,5	1200	40,0	0,6	IS13/68
	◆ FP50R12KE3	1200	50	0,45	1,70	1600	50	0,65	0,8	6,5	1200	40,0	0,6	IS13/68
	◆ FP75R12KE3	1200	75	0,35	1,70	1600	75	0,65	0,8	6,5	1200	40,0	0,6	IS13/68

◆ New type

■ Not for new design

IGBT

SCR/Diode Modules

Presspacks

Stacks

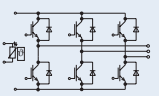
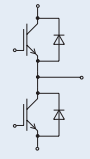
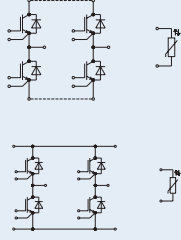
Outlines

Accessories

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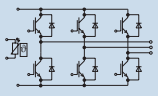
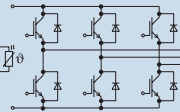
IGBT Standard Modules

600 V – Type		V_{CES} V	I_C A	V_{CESat} V $T_{vj}=25^\circ\text{C}$ typ.	P_{tot} W	R_{thJC} K/W $\leq$ per arm	Outline / page
 3-Phase- Full-Bridges	Standard						
	BSM20GD60DLC	600	20	1,95	125	1,0	IS2/60
	BSM20GD60DLCE3224	600	20	1,95	125	1,0	IS3/60
	BSM30GD60DLC	600	30	1,95	135	0,9	IS2/60
	BSM30GD60DLCE3224	600	30	1,95	135	0,9	IS3/60
	BSM50GD60DLC	600	50	1,95	250	0,5	IS3/60
	BSM50GD60DLCE3226	600	50	1,95	250	0,5	IS2/60
	BSM75GD60DLC	600	75	1,95	330	0,37	IS3/60
	BSM100GD60DLC	600	100	1,95	430	0,29	IS8/67
	BSM150GD60DLC	600	150	1,95	570	0,22	IS8/67
	BSM200GD60DLC	600	200	1,95	700	0,18	IS8/67
 Half-Bridges	Standard						
	BSM50GB60DLC	600	50	1,95	280	0,44	IS4/66
	BSM75GB60DLC	600	75	1,95	355	0,35	IS4/66
	BSM100GB60DLC	600	100	1,95	445	0,28	IS4/66
	BSM150GB60DLC	600	150	1,95	595	0,21	IS4/66
	BSM200GB60DLC	600	200	1,95	730	0,17	IS4/66
	BSM300GB60DLC	600	300	1,95	1250	0,10	IS5a/66
 FourPACK	Low Loss						
	◆ F4-100R06KL4	600	100	on request	on request	on request	IS19/67
	◆ F4-150R06KL4	600	150	on request	on request	on request	IS19/67
	◆ F4-200R06KL4	600	200	on request	on request	on request	IS20/67

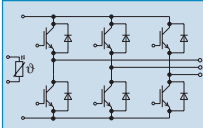
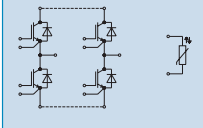
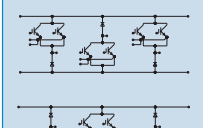
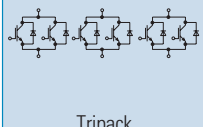
◆ New type

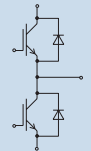
■ Not for new design

1200 V – Type

Type		V_{CES} V	I_C A	V_{CESat} V $T_{vj}=25^\circ\text{C}$ typ.	P_{tot} W	R_{thJC} K/W $\leq$ per arm	Outline / page
 3-Phase-Full-Bridges	Standard 2. Generation						
	BSM10GD120DN2	1200	10	2,7	80	1,52	IS2/66
	BSM10GD120DN2E3224	1200	10	2,7	80	1,52	IS3/66
	BSM15GD120DN2	1200	15	2,5	145	0,86	IS2/66
	BSM15GD120DN2E3224	1200	15	2,5	145	0,86	IS3/66
	BSM25GD120DN2	1200	25	2,5	200	0,6	IS2/66
	BSM25GD120DN2E3224	1200	25	2,5	200	0,6	IS3/66
	BSM35GD120DN2	1200	35	2,7	280	0,44	IS2/66
	BSM35GD120DN2E3224	1200	35	2,7	280	0,44	IS3/66
	BSM50GD120DN2	1200	50	2,5	350	0,35	IS3/66
	BSM50GD120DN2E3226	1200	50	2,5	350	0,35	IS2/66
	BSM50GD120DN2G	1200	50	2,5	400	0,35	IS8/67
	BSM75GD120DN2	1200	75	2,5	520	0,235	IS8/67
	BSM100GD120DN2	1200	100	2,5	680	0,182	IS8/67
	Low Loss 2. Generation						
	BSM15GD120DLCE3224	1200	15	2,1	145	0,86	IS3/66
	BSM25GD120DLCE3224	1200	25	2,1	200	0,6	IS3/66
	BSM35GD120DLCE3224	1200	35	2,1	280	0,44	IS3/66
	BSM50GD120DLC	1200	50	2,1	350	0,35	IS3/66
	BSM75GD120DLC	1200	75	2,1	500	0,25	IS8/67
	BSM100GD120DLC	1200	100	2,1	650	0,19	IS8/67
 3-Phase-Full-Bridges	IGBT3						
	FS25R12KE3G	1200	25	1,7	145	0,86	IS3a/66
	FS35R12KE3G	1200	35	1,7	200	0,60	IS3a/66
	FS50R12KE3	1200	50	1,7	270	0,45	IS3a/66
	FS75R12KE3	1200	75	1,7	350	0,35	IS3a/66
	FS75R12KE3G	1200	75	1,7	350	0,35	IS8a/67
	FS100R12KE3	1200	100	1,7	480	0,26	IS8a/67
	FS150R12KE3	1200	150	1,7	700	0,18	IS8a/67

IGBT Standard Modules

1200 V – Type		V_{CES} V	I_C A	V_{CESat} V $T_{vj}=25^{\circ}\text{C}$ typ.	P_{tot} W	R_{thJC} K/W $\leq$	Outline / page
 3-Phase-Full-Bridges	Short Tail						
	◆ FS25R12KS4	1200	25	on request	on request	on request	IS3a/66
	◆ FS50R12KS4	1200	50	on request	on request	on request	IS3a/66
	FS75R12KS4	1200	75	3,2	500	0,25	IS8/67
	FS100R12KS4	1200	100	3,2	660	0,19	IS8/67
 FourPACK	Short Tail						
	◆ F4-50R12KS4	1200	50	on request	on request	on request	IS19/67
	◆ F4-75R12KS4	1200	75	on request	on request	on request	IS19/67
	◆ F4-100R12KS4	1200	100	on request	on request	on request	IS20/67
	◆ F4-150R12KS4	1200	150	on request	on request	on request	IS20/67
 SR-Modules	Standard 2. Generation						
	BSM150GXR120DN2	1200	150	2,5	1050	0,12	IS21/67
	BSM150GXL120DN2	1200	150	2,5	1050	0,12	IS21/67
 Tripack	Standard 2. Generation						
	BSM100GT120DN2	1200	100	2,5	680	0,182	IS9/67
	BSM150GT120DN2	1200	150	2,5	1250	0,12	IS9/67
	BSM200GT120DN2	1200	200	2,5	1400	0,09	IS9/67
	Low Loss 2. Generation						
	BSM150GT120DLC	1200	150	2,1	1000	0,125	IS9/67
	BSM200GT120DLC	1200	200	2,1	1300	0,095	IS9/67

1200 V – Type		V_{CES} V	I_C A	V_{CESat} V $T_{vj}=25^{\circ}\text{C}$ typ.	P_{tot} W	R_{thJC} K/W $\leq$ per arm	Outline / page
 Half-Bridges	Standard 2. Generation						
	BSM25GB120DN2	1200	25	2,5	200	0,6	IS4/66
	BSM35GB120DN2	1200	35	2,7	280	0,44	IS4/66
	BSM50GB120DN2	1200	50	2,5	400	0,3	IS4/66
	BSM75GB120DN2	1200	75	2,5	625	0,2	IS4/66
	BSM100GB120DN2K	1200	100	2,5	700	0,18	IS4/66
	BSM100GB120DN2	1200	100	2,5	800	0,16	IS5a/66
	BSM150GB120DN2	1200	150	2,5	1250	0,1	IS5a/66
	BSM200GB120DN2	1200	200	2,5	1400	0,09	IS5a/66
	Low Loss 2. Generation						
	BSM35GB120DLC	1200	35	2,1	340	0,40	IS4/66
	BSM50GB120DLC	1200	50	2,1	460	0,27	IS4/66
	BSM75GB120DLC	1200	75	2,1	690	0,18	IS4/66
	BSM100GB120DLCK	1200	100	2,1	830	0,15	IS4/66
	BSM100GB120DLC	1200	100	2,1	780	0,16	IS5a/66
	BSM150GB120DLC	1200	150	2,1	1200	0,1	IS5a/66
	BSM200GB120DLC	1200	200	2,1	1300	0,08	IS5a/66
	BSM300GB120DLC	1200	300	2,1	2500	0,055	IS5a/66
	IGBT3						
	FF150R12KE3G	1200	150	1,7	780	0,16	IS5a/66
	FF200R12KE3	1200	200	1,7	1040	0,12	IS5a/66
	FF300R12KE3	1200	300	1,7	1470	0,085	IS5a/66
	◆ FF400R12KE3	1200	400	on request	on request	on request	IS5a/66
	Short Tail						
	FF100R12KS4	1200	100	3,2	780	0,16	IS5a/66
	FF150R12KS4	1200	150	3,2	1200	0,1	IS5a/66
	FF200R12KS4	1200	200	3,2	1400	0,09	IS5a/66
	FF300R12KS4	1200	300	3,2	1950	0,06	IS5a/66

- ◆ New type
- Not for new design

IGBT

SCR/Diode Modules

Presspacks

Stacks

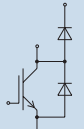
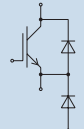
Outlines

Accessories

Explanations

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IGBT Standard Modules

1200 V – Type		V_{CES} V	I_C A	V_{CESat} V $T_{vj}=25^\circ\text{C}$ typ.	P_{tot} W	R_{thJC} K/W $\leq$ per arm	Outline / page
	Standard 2. Generation						
	BSM25GAL120DN2	1200	25	2,5	200	0,6	IS4/66
	BSM50GAL120DN2	1200	50	2,5	400	0,3	IS4/66
	BSM75GAL120DN2	1200	75	2,5	625	0,2	IS4/66
	BSM100GAL120DN2	1200	100	2,5	800	0,16	IS5/66
	BSM150GAL120DN2	1200	150	2,5	1250	0,1	IS5/66
	BSM200GAL120DN2	1200	200	2,5	1400	0,09	IS5/66
	Low Loss 2. Generation						
	BSM100GAL120DLCK	1200	100	2,1	830	0,15	IS4/66
	BSM150GAL120DLC	1200	150	2,1	1200	0,1	IS5/66
	BSM200GAL120DLC	1200	200	2,1	1300	0,09	IS5/66
	BSM300GAL120DLC	1200	300	2,1	2500	0,05	IS5/66
GAL Chopper	IGBT3						
	FD200R12KE3	1200	200	1,7	1040	0,12	IS5a/66
	FD300R12KE3	1200	300	1,7	1470	0,085	IS5a/66
	Standard 2. Generation						
	BSM75GAR120DN2	1200	75	2,5	625	0,2	IS4/66
	BSM100GAR120DN2	1200	100	2,5	800	0,16	IS5/66
	BSM150GAR120DN2	1200	150	2,5	1250	0,1	IS5/66
	BSM200GAR120DN2	1200	200	2,5	1400	0,09	IS5/66
	Low Loss 2. Generation						
	BSM300GAR120DLC	1200	300	2,1	2500	0,05	IS5/66
	IGBT3						
GAR Chopper	DF200R12KE3	1200	200	1,7	1040	0,12	IS5a/66
	DF300R12KE3	1200	300	1,7	1470	0,085	IS5a/66
	Standard 2. Generation						
	BSM200GA120DN2	1200	200	2,5	1550	0,08	IS6a/66
	BSM200GA120DN2S	1200	200	2,5	1550	0,08	IS10a/68
	BSM300GA120DN2	1200	300	2,5	2500	0,05	IS6a/66
	BSM300GA120DN2S	1200	300	2,5	2500	0,05	IS10a/68
	BSM300GA120DN2E3166	1200	300	2,5	2500	0,05	IS6a/66
	BSM400GA120DN2	1200	400	2,5	2700	0,045	IS6a/66
Single Switches	BSM400GA120DN2S	1200	400	2,5	2700	0,045	IS10a/68

◆ New type

■ Not for new design

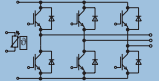
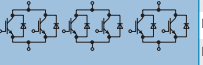
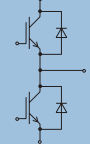
1200 V – Type

Type		V_{CES} V	I_C A	V_{CEsat} V $T_{vj}=25^{\circ}\text{C}$ typ.	P_{tot} W	R_{thJC} K/W $\leq$	Outline / page
	Low Loss 2. Generation						
	BSM200GA120DLC	1200	200	2,1	1470	0,09	IS6a/66
	BSM200GA120DLCs	1200	200	2,1	1470	0,09	IS10a/68
	BSM300GA120DLC	1200	300	2,1	2270	0,055	IS6a/66
	BSM300GA120DLCs	1200	300	2,1	2270	0,055	IS10a/68
	BSM400GA120DLC	1200	400	2,1	2500	0,05	IS6a/66
	BSM400GA120DLCs	1200	400	2,1	2500	0,05	IS10a/68
	BSM600GA120DLC	1200	600	2,1	3900	0,032	IS6a/66
	BSM600GA120DLCs	1200	600	2,1	3900	0,03	IS10a/68
	IGBT3						
	FZ300R12KE3G	1200	300	1,7	1470	0,085	IS6a/66
	FZ300R12KE3B1G	1200	300	1,7	1470	0,085	IS10a/68
Single Switches	FZ400R12KE3	1200	400	1,7	2250	0,055	IS6a/66
	FZ400R12KE3B1	1200	400	1,7	2250	0,055	IS10a/68
	FZ600R12KE3	1200	600	1,7	2750	0,045	IS6a/66
	FZ600R12KE3B1	1200	600	1,7	2750	0,045	IS10a/68
	Short Tail						
	FZ400R12KS4	1200	400	3,2	2500	0,05	IS6a/66
	FZ600R12KS4	1200	600	3,2	3900	0,03	IS6a/66

Diode Modules

Type		V_{CES} V	I_F A	V_F V	Q_R μ As typ	R_{thJC} K/W ≤	Outline / page
 Single Diodes	BYM 300 A 120 DN2	1200	300	2,3	40	0,125	IS11a/68
	BYM 300 A 170 DN2	1700	250	2,3	70	0,150	IS11a/68
	BYM 600 A 170 DN 2	1700	400	2,0	100	0,090	IS11a/68
 Dual Diodes	BYM 200 B 170 DN 2	1700	200	2,2	50	0,150	IS5a/66
	BYM 300 B 170 DN 2	1700	300	2,2	75	0,120	IS5a/66

IGBT Standard Modules

1700 V – Type		V_{CES} V	I_C A	V_{CEsat} V $T_{vj}=25^\circ\text{C}$ typ.	P_{tot} W	R_{thJC} K/W $\leq$ per arm	Outline / page
 3-Phase- Full-Bridges	Low Loss						
	■ BSM50GD170DL	1700	50	2,7	480	0,26	IS8/67
	■ BSM75GD170DL	1700	75	2,7	625	0,20	IS8/67
	IGBT3						
	◆ FS75R17KE3	1200	75	on request	on request	on request	IS8a/67
	◆ FS100R17KE3	1200	100	on request	on request	on request	IS8a/67
 Tripack	Low Loss						
	■ BSM100GT170DL	1700	100	2,7	960	0,13	IS9/67
	■ BSM150GT170DL	1700	150	2,7	1250	0,10	IS9/67
 Half-Bridges	Standard						
	BSM50GB170DN2	1700	50	3,4	500	0,25	IS4/66
	BSM75GB170DN2	1700	75	3,4	625	0,20	IS4/66
	BSM100GB170DN2	1700	100	3,4	1000	0,13	IS5a/66
	BSM150GB170DN2	1700	150	3,4	1250	0,10	IS5a/66
	Low Loss						
	BSM100GB170DLC	1700	100	2,6	960	0,13	IS5a/66
	BSM150GB170DLC	1700	150	2,6	1250	0,10	IS5a/66
	BSM200GB170DLC	1700	200	2,6	1660	0,075	IS5a/66
	IGBT3						
	◆ FF200R17KE3	1700	200	2,0	1250	0,100	IS5a/66
	◆ FF300R17KE3	1700	300	2,0	1470	0,085	IS5a/66
 Single Switches	Standard						
	BSM200GA170DN2	1700	200	3,4	1750	0,070	IS6a/66
	BSM200GA170DN2S	1700	200	3,4	1750	0,070	IS10a/68
	BSM300GA170DN2	1700	300	3,4	2500	0,050	IS6a/66
	BSM300GA170DN2S	1700	300	3,4	2500	0,050	IS10a/68
	Low Loss						
	BSM200GA170DLC	1700	200	2,6	1920	0,065	IS6a/66
	BSM300GA170DLC	1700	300	2,6	2500	0,050	IS6a/66
	BSM400GA170DLC	1700	400	2,6	3120	0,040	IS6a/66
	IGBT3						
	◆ FZ400R17KE3	1700	400	2,0	2270	0,055	IS6a/66
	◆ FZ600R17KE3	1700	600	2,0	3120	0,040	IS6a/66

◆ New type

■ Not for new design

IGBT

SCR/Diode Modules

Presspacks

Stacks

Outlines

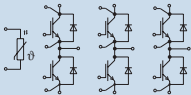
Accessories

Explanations

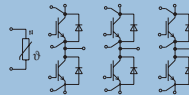
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EconoPACK +

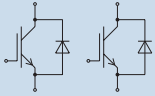
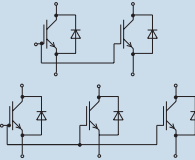
all Data are preliminary

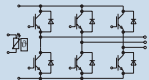
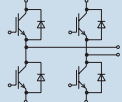
1200 V _{CES}							
Type		V _{CES} V	I _C A	V _{CESat} V T _{vj} =25 °C typ.	E _{on} /E _{off} mWs T _{vj} =125 °C typ.	R _{thJC} K/W	Outline / page
	IGBT3						
	FS150R12KE3G	1200	150	1,7	11/24	0,18	IS14/69
	FS225R12KE3	1200	225	1,7	15/36	0,11	IS14/69
	FS300R12KE3	1200	300	1,7	22/43	0,085	IS14/69
	FS450R12KE3	1200	450	1,7	33/65	0,06	IS14/69

- ◆ New type
- Not for new design

1700 V _{CES}							
Type		V _{CES} V	I _C A	V _{CESat} V T _{vj} =25 °C typ.	E _{on} /E _{off} mWs T _{vj} =125 °C typ.	R _{thJC} K/W	Outline / page
	IGBT3						
	FS150R17KE3G	1700	150	2,0	60/50	0,12	IS14/69
	FS225R17KE3	1700	225	2,0	90/75	0,09	IS14/69
	FS300R17KE3	1700	300	2,0	120/100	0,075	IS14/69
	FS450R17KE3	1700	450	2,0	150/150	0,055	IS14/69

IGBT High Power Modules

1200 V _{CES}							
Type *)		V _{CES} V	I _C A	V _{CESat} V T _{Vj} =25°C typ.	E _{on} /E _{off} mWs T _{Vj} =125°C typ.	R _{thJC} °K/W per arm	Outline / page
 Dual modules	Standard 2. Generation						
	FF400R12KF4	1200	400	2,7	70/60	0,046	IH2/70
	FF600R12KF4	1200	600	2,7	90/90	0,032	IH2/70
	FF800R12KF4	1200	800	2,7	130/120	0,025	IH2/70
	Low Loss 2. Generation						
	FF400R12KL4C	1200	400	2,1	72/58	0,044	IH2/70
	FF600R12KL4C	1200	600	2,1	100/90	0,032	IH2/70
	FF800R12KL4C	1200	800	2,1	120/130	0,025	IH2/70
	IGBT3						
	◆ FF600R12KE3	1200	600	1,7	100/95	0,044	IH2/70
	◆ FF800R12KE3	1200	800	1,7	135/130	0,032	IH2/70
	◆ FF1200R12KE3	1200	1200	1,7	200/190	0,025	IH2/70
	Short Tail						
	FZ800R12KS4	1200	800	3,0	76/64	0,018	IH4/70
 Single modules	Standard 2. Generation						
	FZ800R12KF4	1200	800	2,7	130/120	0,023	IH1/70
	FZ1050R12KF4	1200	1050	2,7	150/170	0,018	IH1/70
	FZ1200R12KF4	1200	1200	2,7	170/190	0,016	IH1/70
	FZ1600R12KF4	1200	1600	2,7	220/290	0,0125	IH1/70
	FZ1800R12KF4	1200	1800	2,7	250/330	0,011	IH7/71
	FZ2400R12KF4	1200	2400	2,7	310/410	0,0084	IH7/71
	Low Loss 2. Generation						
	FZ800R12KL4C	1200	800	2,1	121/127	0,022	IH1/70
	FZ1200R12KL4C	1200	1200	2,1	165/195	0,016	IH1/70
	FZ1600R12KL4C	1200	1600	2,1	210/260	0,0125	IH1/70
	FZ1800R12KL4C	1200	1800	2,1	230/295	0,0110	IH7/71
	FZ2400R12KL4C	1200	2400	2,1	320/400	0,0084	IH7/71
	IGBT3						
	◆ FZ1200R12KE3	1200	1200	1,7	245/190	0,022	IH4/70
	◆ FZ1600R12KE3	1200	1600	1,7	325/250	0,016	IH4/70
	◆ FZ2400R12KE3	1200	2400	1,7	490/380	0,0125	IH4/70
	◆ FZ2400R12KE3_B9	1200	2400	1,7	490/380	0,0011	IH7/71
	◆ FZ3600R12KE3	1200	3600	1,7	735/570	0,008	IH7/71

1200 V _{CES}							
Type *)		V _{CES} V	I _C A	V _{CESat} V T _{Vj} =25°C typ.	E _{on} /E _{off} mWs T _{Vj} =125°C typ.	R _{thJC} K/W per arm	Outline / Page
 Sixpack modules	Standard 2. Generation						
	FS300R12KF4	1200	300	2,7	80/45	0,064	IH8/71
	FS400R12KF4	1200	400	2,7	100/55	0,048	IH8/71
 Chopper modules	Standard 2. Generation						
	FD400R12KF4	1200	400	2,7	70/60	0,046	IH2/70
	FD600R12KF4	1200	600	2,7	90/90	0,032	IH2/70
 4-pack modules	Short Tail						
	F4-400R12KS4_B2	1200	400	3,0	38/32	0,042	IH5/70

◆ New type

■ Not for new design

All modules are UL recognized

*) valid for all part-no:
T_{Vj} = 125°C, I_{CRM} = 2xI_C

IGBT

SCR/Diode Modules

Presspacks

Stacks

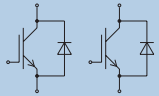
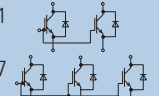
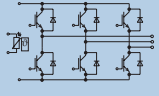
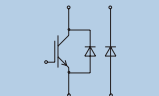
Outlines

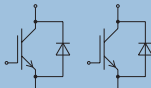
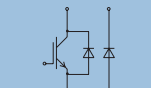
Accessories

Explanations

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IGBT High Power Modules

1600+1700 V _{CES}							
Type *)		V _{CES} V	I _C A	V _{CEsat} V T _{Vj} =25°C typ.	E _{on} /E _{off} mWs T _{Vj} =125°C typ.	R _{thJC} K/W per arm	Outline / page
 Dual modules	Standard 2. Generation						
	FF400R16KF4	1600	400	3,3	170/90	0,04	IH2/70
	FF600R16KF4	1600	600	3,5	240/140	0,032	IH2/70
	IGBT 3						
	◆ FF600R17KE3	1700	600	2,4	185/210	0,024	IH2/70
	◆ FF800R17KE3	1700	800	2,4	240/280	0,028	IH2/70
	◆ FF1200R17KE3	1700	1200	2,4	345/430	0,021	IH2/70
 Single modules	Standard 2. Generation						
	FZ800R16KF4	1600	800	3,3	340/180	0,02	IH1/70
	FZ1200R16KF4	1600	1200	3,5	490/290	0,016	IH1/70
	FZ1800R16KF4	1600	1800	3,5	750/450	0,011	IH7/71
	IGBT 3						
	◆ FZ1200R17KE3	1700	1200	2,4	345/430	0,017	IH4/70
	◆ FZ1600R17KE3	1700	1600	2,4	440/585	0,014	IH4/70
	◆ FZ2400R17KE3	1700	2400	2,4	590/910	0,010	IH4/70
	◆ FZ2400R17KE3_B9	1700	2400	2,4	590/910	0,009	IH7/71
	◆ FZ3600R17KE3	1700	3600	2,4	745/1430	0,007	IH7/71
 Six pack modules	Standard 2. Generation						
	FS300R16KF4	1600	300	3,5	120/70	0,064	IH8/71
 Chopper modules	Standard 2. Generation						
	FD400R16KF4	1600	400	3,3	170/90	0,04	IH2/70
	FD600R16KF4	1600	600	3,5	240/140	0,032	IH2/70
	IGBT 3						
	◆ FD1200R17KE3_K	1700	1200	2,4	345/430	0,021	IH4/70

1700 V _{CES}							
Type *)		V _{CES} V	I _C A	V _{CEsat} V T _{vj} =25°C typ.	E _{on} /E _{off} mWs T _{vj} =125°C typ.	R _{thJC} K/W per arm	Outline page
 Dual modules	Low Loss						
	FF400R17KF6C_B2	1700	400	2,7	180/150	0,016	IH2/70
	FF401R17KF6C_B2	1700	400	2,7	200/150	0,04	IH9/71
	FF600R17KF6C_B2	1700	600	2,7	270/220	0,026	IH2/70
	FF800R17KF6C_B2	1700	800	2,7	290/335	0,02	IH2/70
	IGBT 3						
	◆ FF400R17KE3_B2	1700	400	on request	on request	on request	IH9/71
	◆ FF600R17KE3_B2	1700	600	on request	on request	on request	IH2/70
	◆ FF800R17KE3_B2	1700	800	on request	on request	on request	IH2/70
	 Single modules	Low Loss					
FZ800R17KF6C_B2		1700	800	2,7	300/325	0,02	IH1/70
FZ1200R17KF6C_B2		1700	1200	2,7	330/480	0,013	IH1/70
FZ1600R17KF6C_B2		1700	1600	2,7	430/670	0,01	IH1/70
FZ1800R17KF6C_B2		1700	1800	2,7	570/725	0,009	IH7/71
FZ2400R17KF6C_B2		1700	2400	2,7	750/1060	0,007	IH7/71
IGBT 3							
◆ FZ1200R17KE3_B2		1700	1200	on request	on request	on request	IH4/70
◆ FZ1600R17KE3_B2		1700	1600	on request	on request	on request	IH4/70
◆ FZ1800R17KE3_B2		1700	1800	on request	on request	on request	IH7/71
◆ FZ2400R17KE3_B2	1700	2400	on request	on request	on request	IH7/71	
 Chopper modules	Low Loss						
	FD401R17KF6C_B2	1700	400	2,7	200/150	0,04	IH9/71
	FD600/1200R17KF6_B2	1700	600	2,7	270/220	0,026	IH2/70
	FD600R17KF6C_B2	1700	600	2,7	270/220	0,016	IH2/70
	FD800R17KF6C_B2	1700	800	2,7	290/335	0,02	IH2/70
	FD1600/1200R17KF6C_B2	1700	1600	2,7	430/670	0,01	IH7/71

◆ New type

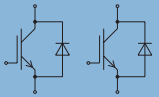
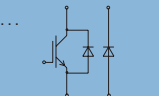
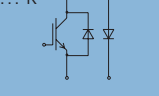
■ Not for new design

..._B2: Traction Module (AISIc)

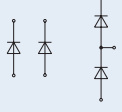
*) valid for all part-no:

T_{vj} = 125°C, I_{CRM} = 2xI_C

IGBT High Power Modules

2500+3300 V _{CES}							
Type *)		V _{CES} V	I _C A	V _{CESat} V T _{vj} =25°C typ.	E _{on} /E _{off} mWs T _{vj} =125°C typ.	R _{thJC} K/W per arm	Outline / page
 Dual modules	Standard						
	FF200R33KF2	3300	200	3,4	480/255	0,057	IH9/71
	FF400R33KF2	3300	400	3,4	960/510	0,026	IH6/71
	FF500R25KF1	2500	500	3	650/500	0,024	IH6/71
 Single modules	Standard						
	FZ800R33KF2	3300	800	3,4	1920/1020	0,013	IH4/70
	FZ1000R25KF1	2500	1000	3	1300/1000	0,012	IH4/70
	FZ1200R33KF2	3300	1200	3,4	2880/1530	0,0085	IH7/71
	FZ1500R25KF1	2500	1500	3	1900/1500	0,008	IH7/71
	High Insulation						
	♦ FZ400R33KF2_B5	3300	400	3,4	960/530	0,026	IH10/72
	♦ FZ800R33KF2_B5	3300	800	3,4	1920/1080	0,013	IH11/72
 Chopper modules	Standard						
	FD400R33KF2	3300	400	3,4	960/510	0,026	IH4/70
	FD800R33KF2	3300	800	3,4	1920/1020	0,013	IH7/71
	High Insulation						
	♦ FD800R33KF2_B5	3300	800	3,4	1920/1080	0,013	IH12/72
	Standard						
 Chopper modules	FD400R33K2-K	3300	400	3,4			IH4/70

Diodes Modules

Type *)		V _{RRM} V	I _F A	I _R mA typ.	Q _r μAs typ.	R _{thJC} K/W per arm	Outline / page
 Diode Modules	DD400S16K4	1600	400	15	40	0,1	IH1/70
	DD600S16K4	1600	600	40	60	0,08	IH1/70
	DD400S17K6C_B2	1700	400	5	145	0,016	IH1/70
	DD401S17K6C_B2	1700	400	10	160	0,07	IH9/71
	DD600S17K6_B2	1700	600	8	170	0,05	IH1/70
	DD800S17K6C_B2	1700	800	10	265	0,034	IH1/70
	Standard						
	DD200S33K2	3300	200	1	220	0,108	IH9/71
	DD400S33K2	3300	400	2	440	0,051	IH4/70
	DD800S33K2	3300	800	4	900	0,025	IH4/70
	DD1200S33K2	3300	1200	6	1320	0,017	IH4/70
	High Insulation						
	♦ DD1200S33K2_B5	3300	1200	6	1320	0,017	IH11/72

♦ New type

■ Not for new design

..._B5: 6.5kV housing / 10.2kV insulation

*) valid for all part-no:

T_{vj} = 125°C, I_{CRM} = 2xI_C

IGBT

SCR/Diode Modules

Presspacks

Stacks

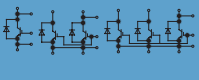
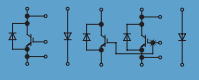
Outlines

Accessories

Explanations

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IGBT High Power Modules

6500 V _{CES}							
Type *)		V _{CES} V	I _C A	V _{CESat} V T _{vj} =25°C typ.	E _{on} /E _{off} mWs T _{vj} =125°C typ.	R _{thJC} K/W per arm	Outline / page
	Standard						
	FZ200R65KF1	6500	200	4,3	1900/1200	0,033	IH10/72
	FZ400R65KF1	6500	400	4,3	4000/2300	0,017	IH11/72
	FZ600R65KF1	6500	600	4,3	5900/3500	0,011	IH12/72
Single modules							
	Standard						
	FD200R65KF1-K	6500	200	4,3	1900/1200	0,033	IH11/72
	FD400R65KF1-K	6500	400	4,3	4000/2300	0,017	IH12/72
Chopper modules							

Diodes Modules

Type *)		V _{RRM} V	I _F A	I _R mA typ.	Q _r μAs typ.	R _{thJC} K/W per arm	Outline / page
	DD200S65K1	6500	200	15	350	0,063	IH11/72
	DD400S65K1	6500	400	15	700	0,032	IH11/72
	DD600S65K1	6500	600	20	1050	0,021	IH11/72
Diode Modules							

- ◆ New type
- Not for new design

*) valid for all part-no:
T_{vj} = 125°C, I_{CRM} = 2xI_C