

EasyPIM

600 V-1200 V		IGBT Inverter						Rectifier Diodes					Brake Chopper			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	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

Presspacks

Stacks

Outlines

Accessories

Explanations

EasyPACK

600 V-1200 V									
Type		V _{CES} V	I _C A @ 80°C	IGBT Inverter				Outline / page	
				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.

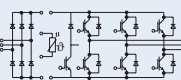
EasyBRIDGE

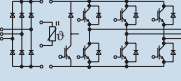
600 V-1200 V				
Type		V _{CES} V	I _C A @ 80°C	Outline / page
◆ Low Loss 2. Generation				
◆ DD6BU50N06XR		600	50*	IS16/64
IGBT 3				
◆ DD6BU40N12XR		1200	40	IS16/64

- ◆ New type/Data preliminary
- * as specified in data sheet

Mounting Hardware see page 95.

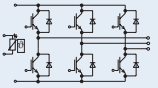
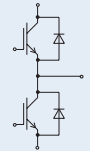
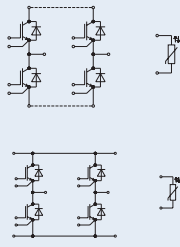
Power Integrated Modules PIM

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	V _{to} V T _{vj} = 150°C	r _T mΩ T _{vj} = 150°C	V _{CES} V	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

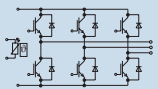
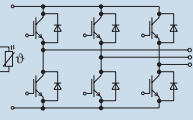
1200 V _{CES}															
Type		IGBT Inverter				Rectifier Diodes					Brake Chopper			Outline / page	
		V _{CES} V	I _C A	R _{thJC} K/W	V _{cesat} V T _{vj} = 25°C	V _{RRM} V	I _d A T _c = 80°C	R _{thJC} K/W	V _{to} V T _{vj} = 150°C	r _T mΩ T _{vj} = 150°C	V _{CES} V T _c = 80°C	I _{C,IGBT} A	R _{thJC} 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

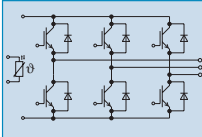
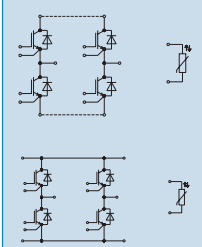
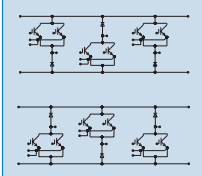
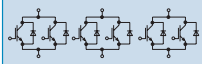
IGBT Standard Modules

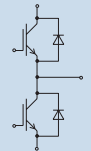
600 V – Type		V _{CES} V	I _C A	V _{CESat} V T _{vj} =25°C typ.	P _{tot} W	R _{thJC} K/W ≤ per arm	Outline / page
Type							
 <p>3-Phase- Full-Bridges</p>	Standard						
	BSM20GD60DLC	600	20	1,95	125	1,0	IS2/60
	BSM20GD60DLCE3224	600	20	1,95	125	1,0	IS3/60
	BSM30GD60DLC	600	30	1,95	135	0,9	IS2/60
	BSM30GD60DLCE3224	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	
 <p>Half-Bridges</p>	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	
 <p>FourPACK</p>	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		V _{CES} V	I _C A	V _{CESat} V T _{vj} =25°C typ.	P _{tot} W	R _{thJC} K/W ≤ per arm	Outline / page	
Type								
 <p>3-Phase-Full-Bridges</p>	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		
 <p>IGBT3</p>	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	

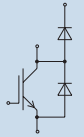
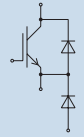
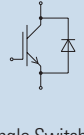
IGBT Standard Modules

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
 <p>3-Phase-Full-Bridges</p>	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
 <p>FourPACK</p>	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
 <p>SR-Modules</p>	Standard 2. Generation						
	BSM150GXR120DN2	1200	150	2,5	1050	0,12	IS21/67
	BSM150GXL120DN2	1200	150	2,5	1050	0,12	IS21/67
 <p>Tripack</p>	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	

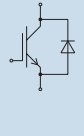
1200 V – Type		V_{CES} V	I_C A	V_{CESat} V $T_{vj}=25^\circ\text{C}$ typ.	P_{tot} W	R_{thJC} K/W \leq per arm	Outline / page	
 <p>Half-Bridges</p>	Standard 2. Generation							
	BSM25GB120DN2	1200	25	2,5	200	0,6	IS4/66	
	BSM35GB120DN2	1200	35	2,7	280	0,44	IS4/66	
	BSM50GB120DN2	1200	50	2,5	400	0,3	IS4/66	
	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 Standard Modules

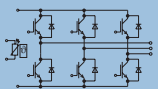
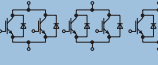
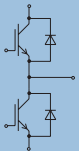

1200 V – Type		V_{CES} V	I_C A	V_{CESat} V $T_{vj}=25^\circ\text{C}$ typ.	P_{tot} W	R_{thJC} K/W \leq per arm	Outline / page
 GAL Chopper	Standard 2. Generation						
	BSM25GAL120DN2	1200	25	2,5	200	0,6	IS4/66
	BSM50GAL120DN2	1200	50	2,5	400	0,3	IS4/66
	BSM75GAL120DN2	1200	75	2,5	625	0,2	IS4/66
	BSM100GAL120DN2	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
	IGBT3						
	FD200R12KE3	1200	200	1,7	1040	0,12	IS5a/66
FD300R12KE3	1200	300	1,7	1470	0,085	IS5a/66	
 GAR Chopper	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						
DF200R12KE3	1200	200	1,7	1040	0,12	IS5a/66	
DF300R12KE3	1200	300	1,7	1470	0,085	IS5a/66	
 Single Switches	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
BSM400GA120DN2S	1200	400	2,5	2700	0,045	IS10a/68	

- ◆ New type
- Not for new design

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
 Single Switches	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
	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		V_{CES} V	I_F A	V_F V	Q_R μAs typ	R_{thJC} K/W \leq	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							
Type		V_{CES} V	I_C A	V_{CEsat} V <small>$T_{vj}=25^\circ C$ typ.</small>	P_{tot} W	R_{thJC} K/W ≤ 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

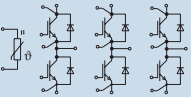
Outlines

Accessories

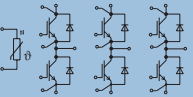
Explanations

EconoPACK +

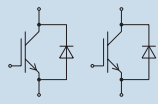
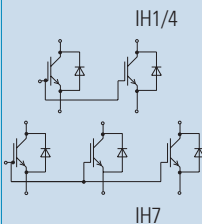
all Data are preliminary

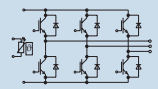

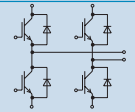
1200 V _{CES}							
Type	V _{CES} V	I _C A	V _{CEsat} V T _{vj} =25 °C typ.	E _{on} /E _{off} mWs T _{vj} =125 °C typ.	R _{thJC} K/W	Outline / page	
	IGBT3						
	FS150R12KE3G	1200	150	1,7	11/24	0,18	IS14/69
	FS225R12KE3	1200	225	1,7	15/36	0,11	IS14/69
	FS300R12KE3	1200	300	1,7	22/43	0,085	IS14/69
FS450R12KE3	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	
 Single modules	Short Tail						
	FZ800R12KS4	1200	800	3,0	76/64	0,018	IH4/70
	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

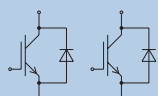
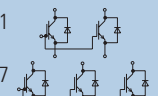
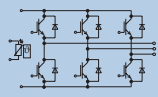
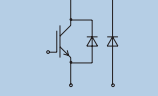
1200 V _{CES}							
Type *)		V _{CES} V	I _c A	V _{CEsat} V T _{vj} =25°C typ.	E _{on} /E _{off} mWs T _{vj} =125°C typ.	R _{thJC} K/W per arm	Outline / Page
 Sixpack modules	Standard 2. Generation						
	FS300R12KF4	1200	300	2,7	80/45	0,064	IH8/71
	FS400R12KF4	1200	400	2,7	100/55	0,048	IH8/71
 Chopper 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

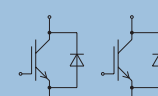

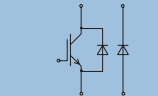
- ◆ New type
- Not for new design

All modules are UL recognized

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

IGBT High Power Modules

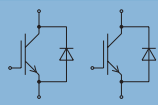
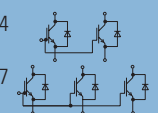
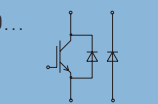
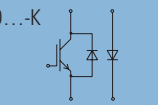
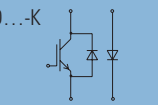
1600+1700 V _{CES}							
Type *)		V _{CES} V	I _c A	V _{CEsat} V T _{vj} =25°C typ.	E _{on} /E _{off} mWs T _{vj} =125°C typ.	R _{thJC} K/W per arm	Outline / page
 Dual modules	Standard 2. Generation						
	FF400R16KF4	1600	400	3,3	170/90	0,04	IH2/70
	FF600R16KF4	1600	600	3,5	240/140	0,032	IH2/70
	IGBT 3						
	◆ FF600R17KE3	1700	600	2,4	185/210	0,024	IH2/70
	◆ FF800R17KE3	1700	800	2,4	240/280	0,028	IH2/70
 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	

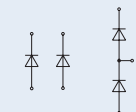
1700 V _{CES}							
Type *)		V _{CES} V	I _c A	V _{CEsat} V T _{vj} =25°C typ.	E _{on} /E _{off} mWs T _{vj} =125°C typ.	R _{thJC} K/W per arm	Outline / page
 Dual modules	Low Loss						
	FF400R17KF6C_B2	1700	400	2,7	180/150	0,016	IH2/70
	FF401R17KF6C_B2	1700	400	2,7	200/150	0,04	IH9/71
	FF600R17KF6C_B2	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
 IH4 IH7 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	
◆ FZ1200R33KF2_B5	3300	1200	3,4	2900/1600	0,0085	IH12/72	
 FD... Single modules	Standard						
	FD400R33KF2	3300	400	3,4	960/510	0,026	IH4/70
	FD800R33KF2	3300	800	3,4	1920/1020	0,013	IH7/71
 FD...-K Chopper modules	High Insulation						
	◆ FD800R33KF2_B5	3300	800	3,4	1920/1080	0,013	IH12/72
 FD...-K Chopper modules	Standard						
	FD400R33K2-K	3300	400	3,4			IH4/70

Diodes Modules							
Type *)	V _{BRM} 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


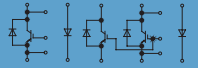
Stacks

Outlines


Accessories

Explanations

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	
 Single modules	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
 Chopper 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

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	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

- ◆ New type
- Not for new design

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

Terms & Conditions of Usage

Attention

The present product data is exclusively subscribed to technically experienced staff. This Data Sheet is describing the specification of the products for which a warranty is granted exclusively pursuant the terms and conditions of the supply agreement. There will be no guarantee of any kind for the product and its specifications. Changes to the Data Sheet are reserved.

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