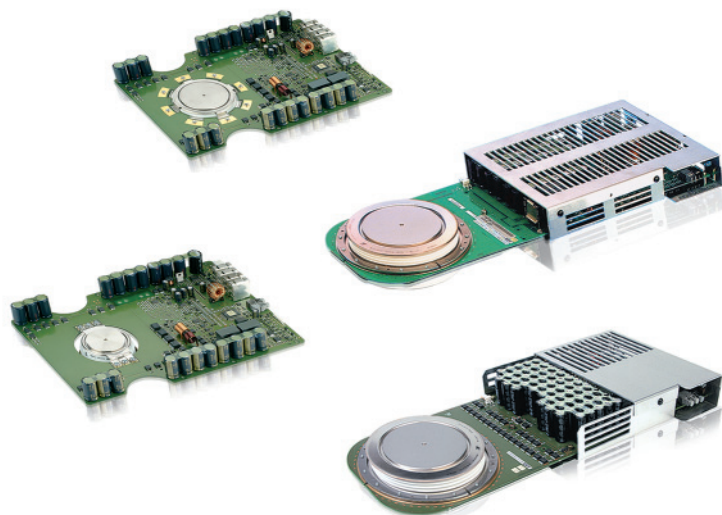


# Integrated Gate-Commutated Thyristors



- patented free-floating silicon technology
- optical trigger input and status feedback
- patented low-inductance housing technology
- fast response and precise timing
- exceptionally low on-state losses
- AC square wave or DC supply input
- cosmic radiation withstand rating

## Asymmetric IGCTs

Part number	$V_{DRM}$	$V_{DC}$	$V_{RRM}$	$I_{TGQM}$	$I_{TAVM}$	$I_{TSM}$		$V_T$	$V_{T0}$	$r_T$	$T_{VJM}$	$R_{thJC}$	$R_{thCH}$	$F_m$	$V_{GIN}$	Outline
					$T_C=85^\circ C$	3ms	10ms	4000A	$T_{VJM}$							
					A	kA	kA	V	V	m $\Omega$						
5SHY 35L4510	4500	2800	17	4000	1700	50	32	2.70	1.40	0.33	125	8.5	3	40	28-40	Fig. 1
5SHY 35L4512	4500	2800	17	4000	2100	56	35	2.00	1.15	0.21	125	8.5	3	40	28-40	Fig. 1
5SHY 55L4500	4500	2800	17	5000	1860	50	33	2.35	1.15	0.30	125	8.5	3	40	28-40	Fig. 2

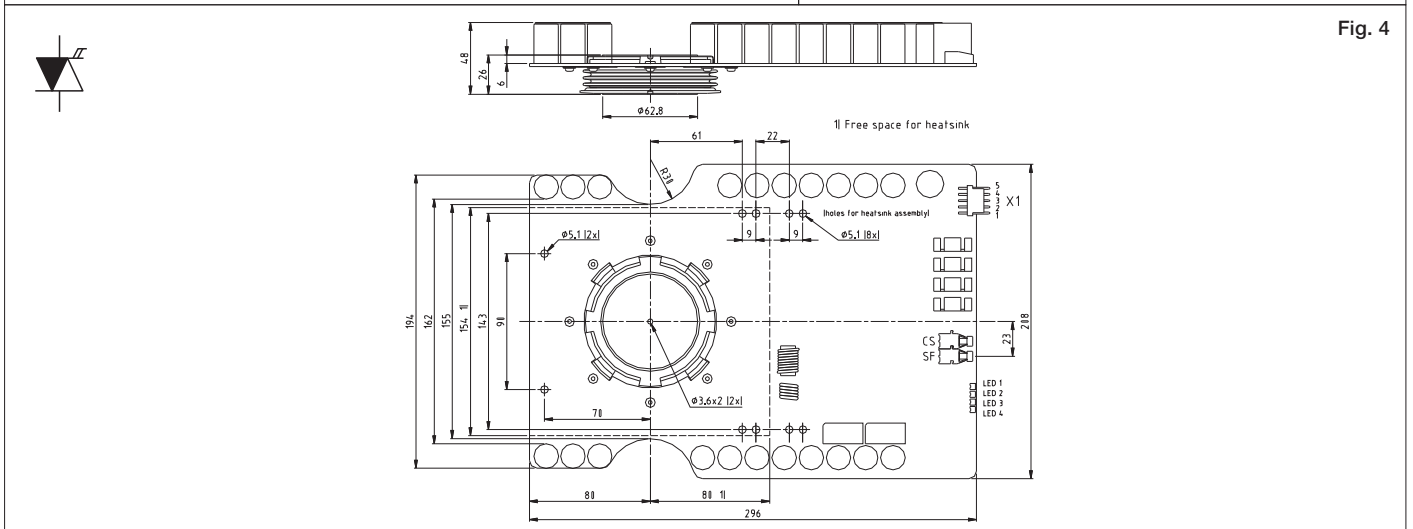
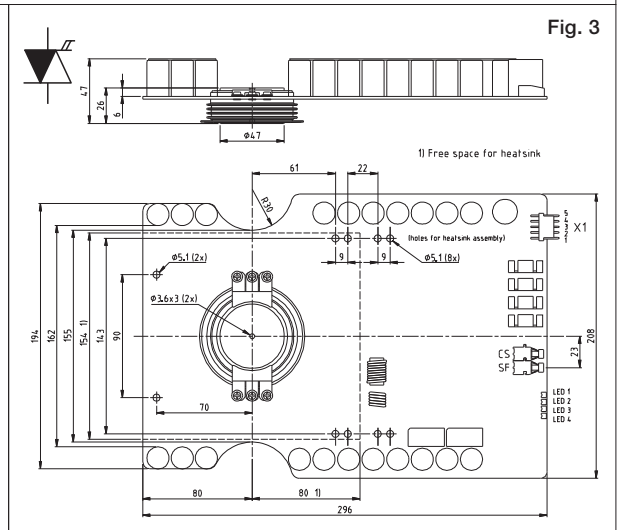
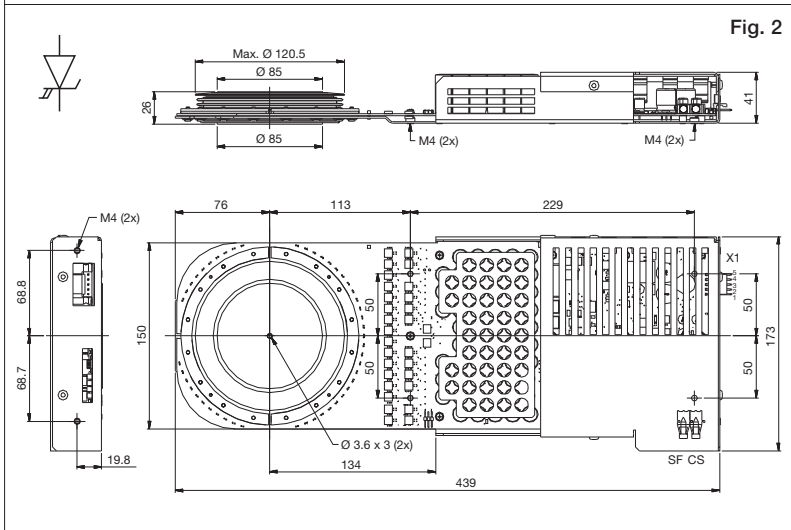
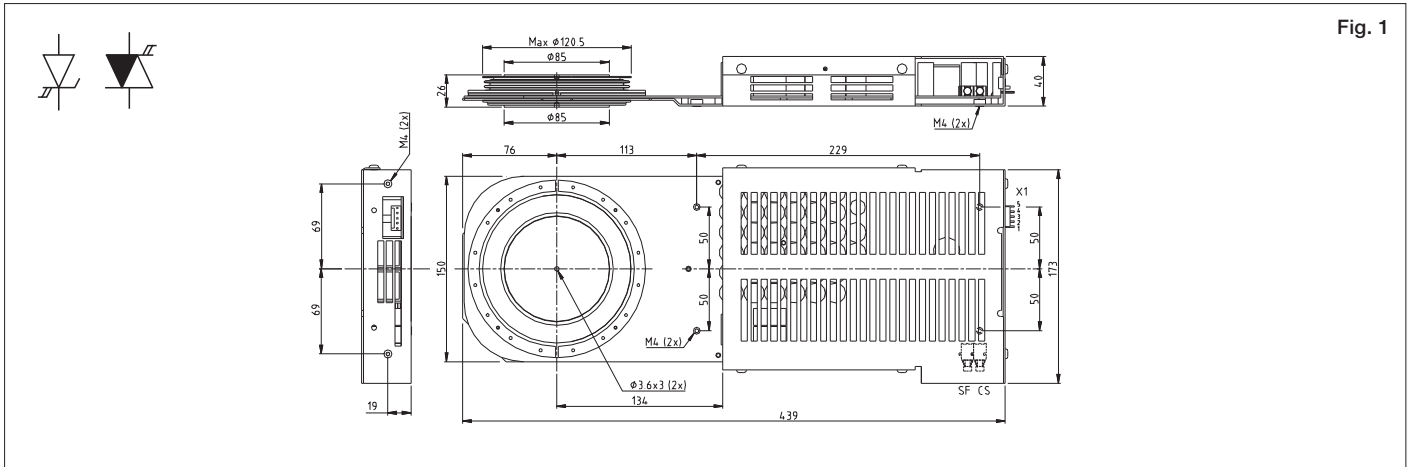
- optimized for snubberless turn-off
- contact factory for series connection

## Reverse conducting IGCTs

Part number	$V_{DRM}$	$V_{DC}$	$I_{TGQM}$	$I_{TAVM} / I_{FAVM}$		$I_{TSM} / I_{FSM}$		$V_T / V_F$	$V_{T0} / V_{F0}$	$r_T / r_F$	$di/dt$	$I_{rr}$	$T_{VJM}$	$R_{thJC}$	$F_m$	$V_{GIN}$	Outline
				$T_C=85^\circ C$		10ms	$I_{TGQM}$	$T_{VJM}$		max.							
				A	A	kA	V	V	m $\Omega$	A/ $\mu s$	A						
5SHX 08F4510 GCT	4500	2800	630	250	5.0	3.00	1.80	2.00					40				
Diode part				130	6.1	5.70	2.80	4.60	250	400	115	53	16	28-40	Fig. 3		
5SHX 14H4510 GCT	4500	2800	1100	420	8.8	3.00	1.65	1.20					25				
Diode part				160	9.4	6.65	3.15	3.20	360	460	115	42	20	28-40	Fig. 4		
5SHX 26L4510 GCT	4500	2800	2200	1010	17.0	2.95	1.80	0.53					13				
Diode part				390	10.6	5.40	2.70	1.24	650	900	125	26	44	28-40	Fig. 1		
5SHX 06F6010 GCT	5500	3300	520	210	3.5	3.50	2.30	2.30					40				
Diode part				110	2.5	6.30	3.30	5.80	190	320	115	53	16	28-40	Fig. 3		
5SHX 10H6010 GCT	5500	3300	900	350	7.5	3.45	1.65	2.00					25				
Diode part				170	7.6	6.40	2.53	4.30	285	430	115	42	20	28-40	Fig. 4		
5SHX 19L6010 GCT	5500	3300	1800	840	18.0	3.45	1.90	0.90					13				
Diode part				340	7.7	6.40	2.70	2.23	510	780	125	26	44	28-40	Fig. 1		

- monolithic integrated freewheeling diode optimized for snubberless turn-off
- for corresponding diodes, please turn to page 11.

Please refer to page 21 for part numbering structure.



Dimensions in mm

### Fast Recovery Diode Recommendation

For all asymmetric and reverse conducting IGCTs, we also offer matching freewheeling, neutral point (NPC) and clamp diodes. The actual choice of the diode depends on the specific application. For technical data on the diode, please refer to page 10.