

# Power Semiconductor Assemblies

## Capsule Mounting Clamps

The "Bar" type clamp uses a two rod system with a straight bar spring that is bent over a central point to give the clamping force on the device. This force is achieved when the indicators, metal shims at each end of the clamp, become just trapped. (CMK 9000 uses a disc spring stack).

The "Box" type clamp uses a four bolt system with disc springs and the correct force on the device is achieved when the bottom of the box just touches the heatsink.

As the force indication is contained within these clamps, special equipment or torque spanners are not required. The clamps can therefore be reset to the correct force at any time, using only a box spanner.



Box clamps are suitable for devices with 19mm, 25mm or 34mm diameter mounting surfaces and of 13.8mm, 14.6 or 26.2mm nominal thicknesses respectively.

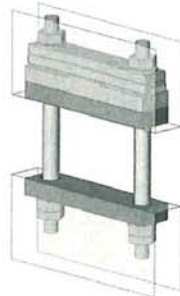


Bar clamps are suitable for devices with 19mm to 125mm diameter mounting surfaces and 450kgf to 9000kgf clamping forces.

Bar Type	Fixing Centres mm	Rod Size	Capsule Device		
			Outline	Mounting Surface Diameter mm	Nominal Thickness mm
CMK450S56M CMK450D56M CMK450DT56M	65	M8	DO-200AA/TO-200AB	19.0	13.8
CMK550S56M CMK550D56M	65	M8	GTO	29.5	16.0
CMK900S56M CMK900D56M CMK900DT56M	65	M8	Diode/Thyristor	25.1	14.6
CMK0600S74M CMK0600D74M	89	M10	Press-Pack IGBTs	47.0	27.0
CMK1000S74M CMK1000D74M	89	M10	Press-Pack IGBTs	47.0	27.0
CMK1100D76M	89	M10	DO-200AB/TO-200AC	34.0	26.2
CMK1130S76M CMK1130D76M CMK1130DT76M	89	M10	DO-200AB/TO-200AC	34.0	26.2
CMK1800S76M CMK1800D76M CMK1800DT76M	89	M10	Wespack PCT	38.0	14.0
CMK2100S76M* CMK2100D76M*	89	M10	GTO	47.0	27.0
CMK2140S76M* CMK2140D76M* CMK2140DT76M*	89	M10	DO-200/Thyristor	47.0	26.8
CMK2700S76M CMK2700D76M CMK2700DT76M	89	M10	Wespack PCT	50.0	14.0

Bar Type	Fixing Centres mm	Rod Size	Capsule Device		
			Outline	Mounting Surface Diameter mm	Nominal Thickness mm
CMK2000S114M CMK2000D114M	132	M12	Press-Pack IGBTs	75.0	26.0
CMK2500S114M CMK2500D114M	132	M12	Press-Pack IGBTs	75.0	26.0
CMK2500S116M* CMK2500D116M*	132	M12	GTO	63.0	26.0
CMK3000S116M* CMK3000D116M*	132	M12	DO-200AD/Thyristor	63.0	33.0
CMK3500S116M* CMK3500D116M*	132	M12	GTO	75.0	26.0
CMK4000S116M* CMK4000D116M*	132	M12	Diode/Thyristor	73.0	36.8
CMK5000D128M*	146	M16	GTO	75.0	26.0
CMK7000D128M*	146	M16	Diode/Thyristor	75.0	26.6
CMK3060S140ML CMK3060D140ML	154	M12	Press-Pack IGBTs	85.1	26.0
CMK9000S160M* CMK9000D160M*	180	M16	Thyristor	99.3	35.8
CMK6120S180ML CMK6120D180ML	196	M16	Press-Pack IGBTs	125.0	26.0

\* M for  $T_j$  up to 190°C, ML for  $T_j$  125°C.  
Note: 1Kgf = 9.8 Newtons



CMK	XXXX	S, D or DT	XX	M
Capsule Mounting Kit	Nominal Clamping Force Kgf	S-Single side cooled (tapped heatsink) D-Double side cooled (through hole in heatsink) DT-Double side cooled (tapped heatsink)	Maximum Capsule Diameter mm	Metric Fixings M8, 10 or 12

Box Type	Fixing Centres mm	Rod Size	Capsule Device		
			Outline	Mounting Surface Diameter mm	Nominal Thickness mm
CMK450B 19M CMK450B 25M CMK1500B 34M	50 PCD 70 PCD	M5x50 Bolts M6x50 Bolts	DO-200AA/TO-200AB Diode/Thyristor DO-200AB/TO-200AC	19.0 25.1 34.0	13.8 14.6 26.2

Note: 1Kgf = 9.8 Newtons



CMK	XXX	B	XX	M
Capsule Mounting Kit	Nominal Clamping Force Kgf	Box Clamp	Capsule Mounting Surface Diameter 19, 25 or 34mm	Metric Fixing Bolts (See Chart)