

STANDARD DIODE MODULE | 整流二极管模块

Ordering Information Table

Device Code	M	D	C	90	-12	*
	①	②	③	④	⑤	⑥
1	-Power Module					
2	-T=thy-thy D=dio-dio F=dio-thy K=fast thy Z=fast dio H=fast thy-fast dio					
3	-Circuit form:A=common positive pole C=series connection K=common negative pole X=reverse parallel connection					
4	-Current Code=I _{F(AV)}					
5	-Voltage code=Code × 100=V _{RRM}					
6	-None: Air-cool * Means water-cool					

Features

- Base & chip insulation AC 2500V
- International standard packing
- Excellent temperature feature
- ≥300A could chose water-cool
- Easy to install

Explanation

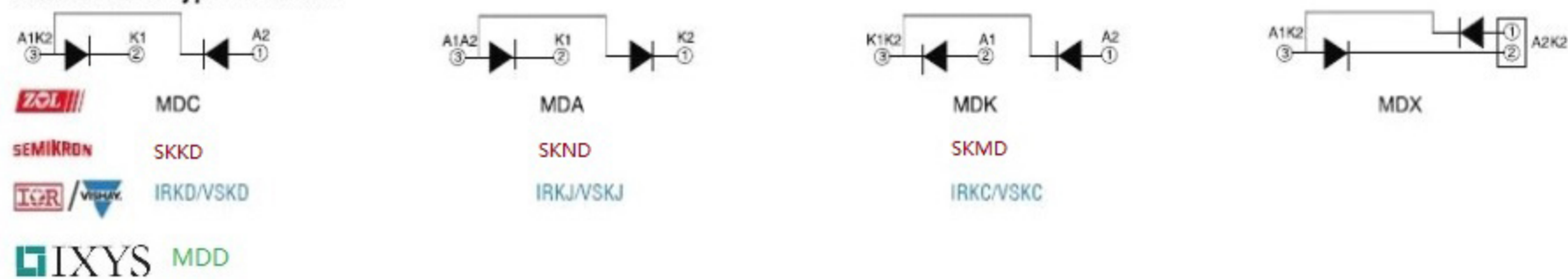
- $I^2t = I_{TSM}^2 \times t_w/2$; t_w =Half sine wave current, when at 50Hz, $I^2t=0.005I_{TSM}^2(A^2S)$
- When at 60Hz, $I_{TSM}(8.3ms)=I_{TSM}(10ms) \times 1.066$
 $T_j=T_{jm}$ $I^2t(8.3ms)=I^2t(10ms) \times 0.943, T_j=T_{jm}$

Applications

- AC DC motor control
- Motor soft start
- Industry heat-up control
- Rectificate power supply
- Welder
- Frequency transformer
- UPS power supply
- Battery charge & discharge



Part number type & circuit



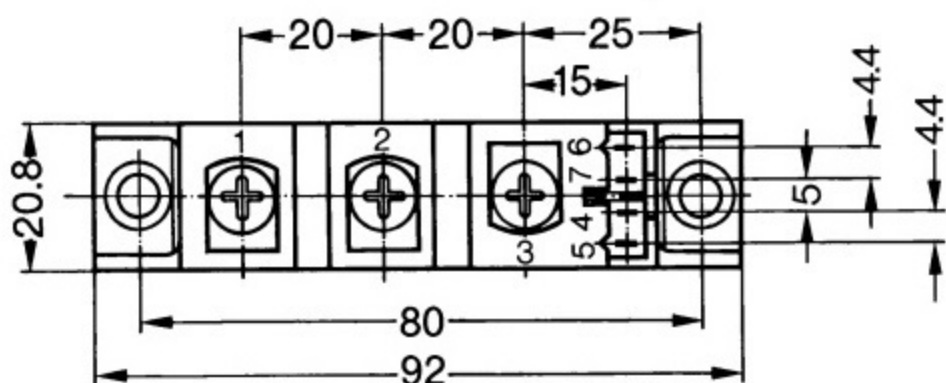
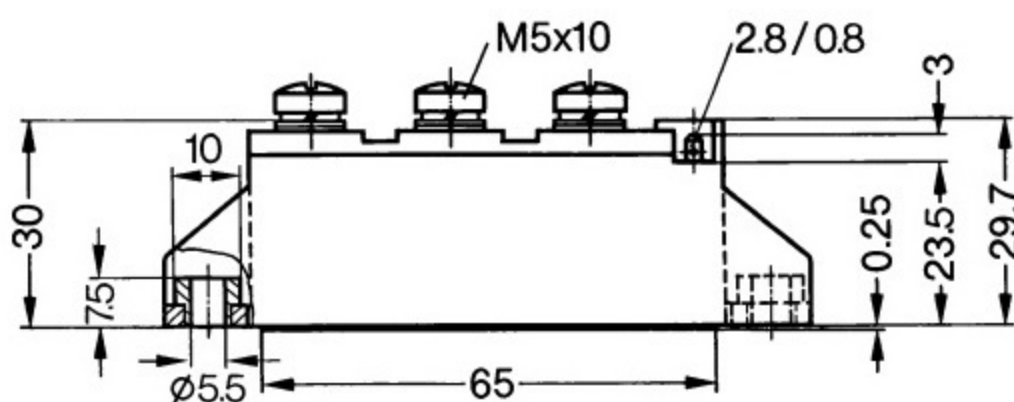
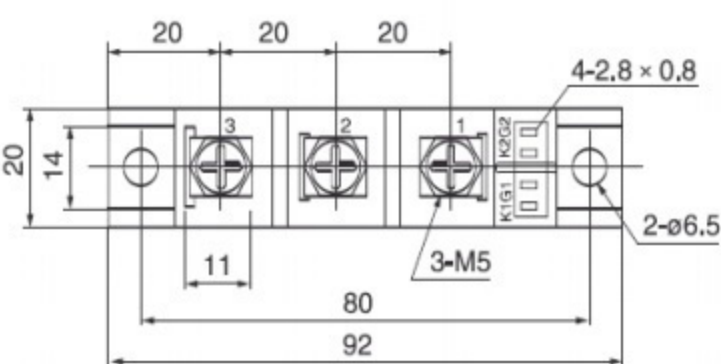
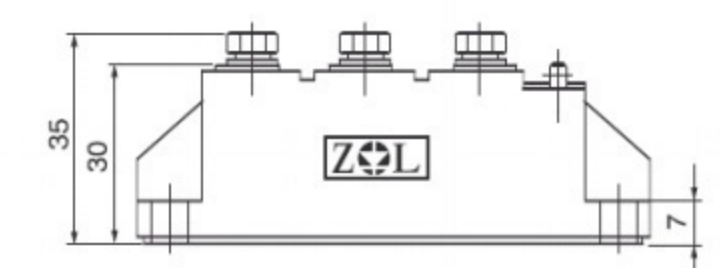
ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Conditions	MDX25	MDX40	MDX55	MDX70	MDX90	MDX110	Unit
$I_{F(AV)}$	Peak collector Current(eac diode)	THS=140°C	25	40	55	70	90	110	A
$I_{F(RMS)}$	RMS on-state current	THS=55°C	41	63	86	110	141	173	A
I_{FMS}	Surge on-state current	THS=55°C	0.65	1	1.3	1.8	2.3	2.6	$A \times 10^3$
V_{RRM}	Repetitive peak reverse voltage	THS=140°C	400-2600						V
I_{RRM}	On-state voltage	THS=140°C	≤8.0	≤8.0	≤8.0	≤10.0	≤10.0	≤10.0	mA
V_{FM}	On-state Current	THS=140°C	1.55	1.55	1.5	1.45	1.4	1.45	V
I_{FM}	Gate Trigger Current	THS=140°C	80	120	170	210	270	330	A
R_{j-c}	Peak gate forward voltage		≤1.30	≤1.10	≤0.90	≤0.72	≤0.61	≤0.53	°C/W
T_j	Junction temperature		-40~+150						°C
T_{stg}	Storage temperature		-40~+125						°C
MT	Mounting torque		≤2.0						N·m
Wt	Weight	Typical value	120	120	125	130	135	140	g

Outline table

(Dimension in mm)

M1



M2

