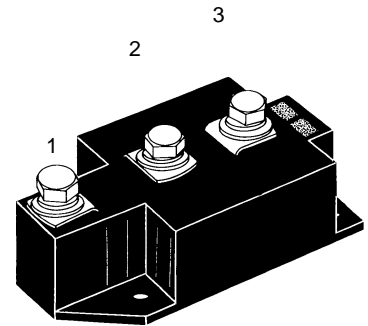
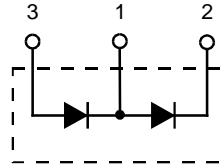


MDD310-08V thru MDD310-22V

Diode/Diode Module

V_{RSM} V	V_{RRM} V	Type
900	800	MDD310-08V
1300	1200	MDD310-12V
1500	1400	MDD310-14V
1700	1600	MDD310-16V
1900	1800	MDD310-18V
2100	2000	MDD310-20V
2300	2200	MDD310-22V



Symbol	Test Conditions	Maximum Ratings
I_{FRM}	$T_{VJ}=T_{VJM}$	480 A
I_{FAVM}	$T_C=100^\circ\text{C}$ 180 sine	310 A
I_{FSM}	$T_{VJ}=45^\circ\text{C}$ $t=10$ ms (50Hz),sine	11500 A
	$V_R=0$ $t=8.3$ ms (60Hz),sine	12200 A
$f i^2 dt$	$T_{VJ}=T_{VJM}$ $t=10$ ms (50Hz),sine	9600 A
	$V_R=0$ $t=8.3$ ms (60Hz),sine	10200 A
$f i^2 dt$	$T_{VJ}=45^\circ\text{C}$ $t=10$ ms (50Hz),sine	662000 A ² S
	$V_R=0$ $t=8.3$ ms (60Hz),sine	620000 A ² S
$f i^2 dt$	$T_{VJ}=T_{VJM}$ $t=10$ ms (50Hz),sine	460000 A ² S
	$V_R=0$ $t=8.3$ ms (60Hz),sine	430000 A ² S
T_{VJ}		-40 ... +150 °C
T_{VJM}		150 °C
T_{stg}		-40 ... +150 °C
V_{ISOL}	50/60Hz,RMS $t=1$ min	3000 V~
	$I_{ISOL} \leq 1$ mA $t=1$ s	3600 V~
M_d	Mounting Torque (M5)	2.5-5 Nm
	Terminal connection torque (M8)	12-15 Nm
Weight	Typ.	320 g

Features

- Package with screw terminals
- Isolation Voltage 3600V-
- Planar glasspassivated chips
- Low forward voltage drop

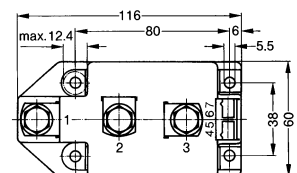
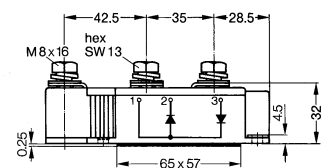
Applications

- Heat and temperature control for industrial furnaces and chemical processes
- Lighting control
- Motor control
- Power converter

Advantages

- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling
- High power density

Dimensions in mm (1 mm = 0.0394")



Symbol	Test Conditions	Characteristic Value
I_R	$V_R=V_{RRM}$ $T_{VJ}=T_{VJM}$	40 mA
V_F	$I_F=600$ A $T_{VJ}=25^\circ\text{C}$	1.2 V
V_{TO}	For power-loss calculations only	0.75 V
r_T	$T_{VJ}=T_{VJM}$	0.63 mΩ
Q_s	$T_{VJ}=125^\circ\text{C}$, $I_F=400$ A, $-di/dt=50$ A/μs	760 μC
I_{RM}		275 A
R_{thJC}	per Diode;DC current	0.129 K/W
	per module	0.065 K/W
R_{thJK}	per Diode;DC current	0.169 K/W
	per module	0.0845 K/W
d_s	Creeping distance on surface	12.7 mm
d_A	Creeping distance in air	9.6 mm
a	Max.allowable acceleration	50 m/s ²