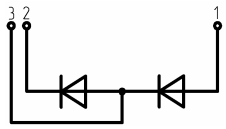
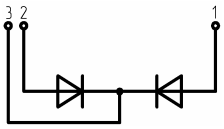
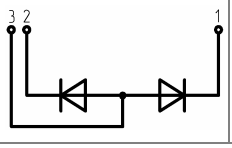
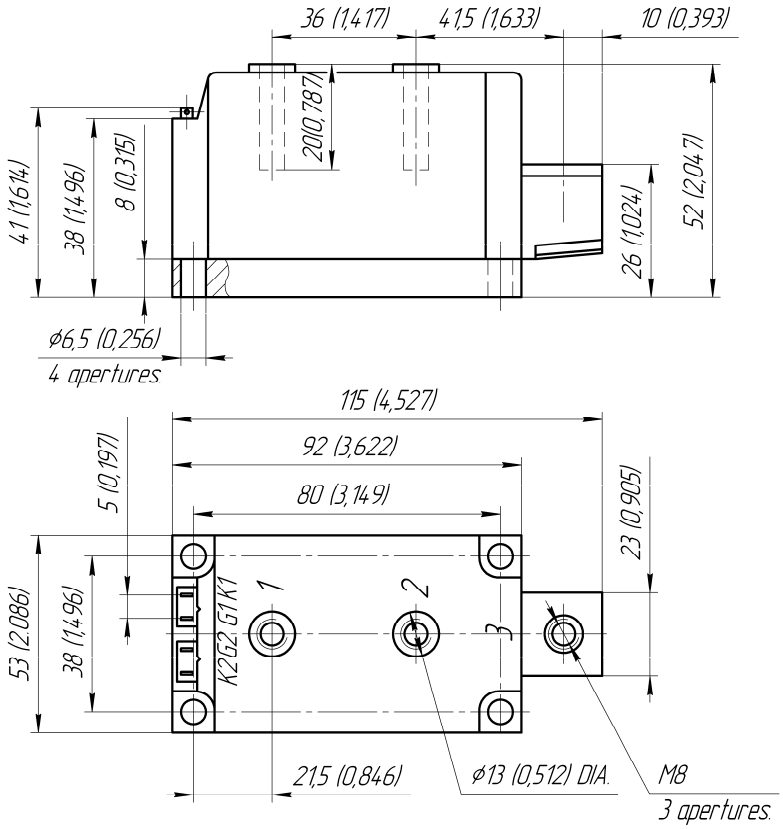
Electrically isolated base plate
Industrial standard package
Simplified mechanical design, rapid assembly
Pressure contact

Double Diode Module For Phase Control MDx-200-34-C

Average forward current		I_{FAV}	200 A
Repetitive peak reverse voltage		V_{RRM}	3000 ÷ 3400 V
V_{RRM}, V	3000	3200	3400
Voltage code	30	32	34
T_j, °C	- 40 ÷ 150		

MD3	MD4	MD5
		



All dimensions in millimeters (inches)

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MAXIMUM ALLOWABLE RATINGS

Symbols and parameters		Units	Values	Test conditions	
ON-STATE					
I_{FAV}	Average forward current	A	200 240	T_c= 112 °C; T_c= 100 °C; 180° half-sine wave; 50 Hz	
I_{FRMS}	RMS forward current	A	314	T_c= 112 °C; 180° half-sine wave; 50 Hz	
I_{FSM}	Surge forward current	kA	4.0 4.6	T_j=$T_{j\ max}$ T_j=25 °C	180° half-sine wave; 50 Hz (t_p=10 ms); single pulse; V_R=0 V;
			5.0 5.8	T_j=$T_{j\ max}$ T_j=25 °C	180° half-sine wave; 60 Hz (t_p=8.3 ms); single pulse; V_R=0 V;
I^2t	Safety factor	$A^2s{\cdot}10^3$	80 105	T_j=$T_{j\ max}$ T_j=25 °C	180° half-sine wave; 50 Hz (t_p=10 ms); single pulse; V_R=0 V;
			100 135	T_j=$T_{j\ max}$ T_j=25 °C	180° half-sine wave; 60 Hz (t_p=8.3 ms); single pulse; V_R=0 V;
BLOCKING					
V_{RRM}	Repetitive peak reverse voltages	V	3000÷3400	$T_{j\ min}$< T_j <$T_{j\ max}$; 180° half-sine wave; 50 Hz;	
V_{RSM}	Non-repetitive peak reverse voltages	V	3100÷3500	$T_{j\ min}$< T_j <$T_{j\ max}$; 180° half-sine wave; 50 Hz; single pulse;	
V_R	Reverse continuous voltages	V	$0.75{\cdot}V_{RRM}$	T_j=$T_{j\ max}$;	
THERMAL					
T_{stg}	Storage temperature	°C	- 40 ÷ 125		
T_j	Operating junction temperature	°C	- 40 ÷ 150		
MECHANICAL					
a	Acceleration under vibration	m/s^2	50		

CHARACTERISTICS

Symbols and parameters		Units	Values	Conditions
ON-STATE				
V_{FM}	Peak forward voltage, max	V	1.75	T_j=25 °C; I_{FM}= 628 A
$V_{F(TO)}$	Forward threshold voltage, max	V	0.86	T_j=$T_{j\ max}$; 0.5 π I_{FAV} < I_T < 1.5 π I_{FAV}
r_T	Forward slope resistance, max	mΩ	1.200	
BLOCKING				
I_{RRM}	Repetitive peak reverse current, max	mA	40	T_j=$T_{j\ max}$; V_R=V_{RRM}
THERMAL				
R_{thjc}	Thermal resistance, junction to case			
	per module	°C/W	0.0650	180° half-sine wave, 50 Hz
	per arm	°C/W	0.1300	
R_{thch}	Thermal resistance, case to heatsink			
	per module	°C/W	0.0200	
	per arm	°C/W	0.0400	

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INSULATION					
V_{ISOL}	Insulation test voltage	kV	3.00	Sine wave, 50 Hz; RMS	t=1 min
			3.60		t=1 sec
MECHANICAL					
M_1	Mounting torque (M6)[1)]	Nm	6.00	Tolerance ± 15%	
M_2	Terminal connection torque (M8)[1)]	Nm	12.00	Tolerance ± 10%	
w	Weight	g	800		

PART NUMBERING GUIDE

MD	3	-	200	-	34	-	C	-	N
1	2		3		4		5		6

1. MD - Rectifier Diode
2. Circuit Schematic
3. Average Forward Current, A
4. Voltage Code
5. Package Type (M.C)
6. Ambient Conditions:
   N – Normal

NOTES

[1)] The screws must be lubricated

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