

MDS Series 160 to 200 Amps three phase diode module

Features

- Package with screw terminals
- Isolation voltage 2500V
- Planar passivated chips
- Blocking voltage up to 1800V
- Low forward voltage drop

Typical Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages

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

Preliminary Data Sheet

V_{RSM}	$I_{DAV}(T_{case}= 100\text{ }^{\circ}C_{j})$	
V_{RRM}	160A	200A
400V	MDS-160-04	MDS-200-04
600V	MDS-160-06	MDS-200-06
800V	MDS-160-08	MDS-200-08
1200V	MDS-160-12	MDS-200-12
1400V	MDS-160-14	MDS-200-14
1600V	MDS-160-16	MDS-200-16
1800V	MDS-160-18	MDS-200-18

Electrical Specifications

Symbol	Specifications Limits		Units	Conditions
I_{DAVM}	160	200	A	$T_C=100^{\circ}C$, module
I_{FSM}	1500	1800	A	$T_{VJ}=45^{\circ}C$ $t\leq 10ms$ (50 HZ) sin.
	1650	1950	A	$V_R=0$ $t\leq 8.3$ ms (60 HZ) sin.
	1350	1600	A	$T_{VJ}=T_{VJM}$ $t\leq 10$ ms (50 HZ) sin.
	1500	1800	A	$V_R=0$ $t\leq 8.3$ ms (60 HZ) sin.
I^2t	11250	16200	A^2s	$T_{VJ}=45^{\circ}C$ $t\leq 10$ ms (50 HZ) sin.
	11300	16000	A^2s	$V_R=0$ $t\leq 8.3$ ms (60 HZ) sin.
	9120	12800	A^2s	$T_{VJ}=T_{VJM}$ $t\leq 10$ ms (50 HZ) sin.
	9350	13600	A^2s	$V_R=0$ $t\leq 8.3$ ms (60 HZ) sin.
Md	$5\pm 15\%$		N.m	mounting torque(M5)
	$5\pm 15\%$		N.m	coupling end torque(M6)
I_R	≤ 1	≤ 1	mA	$V_R=V_{RRM}$ $T_{VJ}=25^{\circ}C$,
	≤ 5	≤ 8	mA	$V_R=V_{RRM}$ $T_{VJ}= T_{VJM}$
V_F	≤ 1.60	≤ 1.30	V	$I_F=150A$ $T_{VJ}=25^{\circ}C$,
V_{TO}	0.8	0.8	V	For power-loss calculations only
r_T	5	3	m Ω	$T_{VJ}=T_{VJM}$
V_{ISOL}	2500		V	50/60HZRMS $t\leq 1$ min I_{ISOL} 1mA $t\leq 1$ s
T_{VJ}/T_{stg}	-40 to 150		$^{\circ}C$	

V _{ISO} L	2500		V	50/60HZRMS t=1min I _{ISO} L 1mA t=1s
T _{VJ} /T _{stg}	-40 to 150		°C	
R _{thJC}	0.83	0.63	K/W	per diode,DC module
	0.138	0.11	K/W	
R _{thJK}	1.13	0.93	K/W	per diode , DC module
	0.188	0.16	K/W	
d _s	10		mm	Exterior creepage distance
d _A	9.40		mm	Creepage distance in the air
a	50		m/S ²	Maximal acceleration
Wt	460		g	Typical
Colour	Black			
L×W×H	94×54×30	mm		

Dimension

