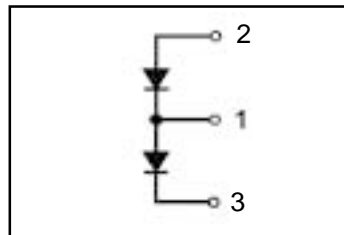


Features

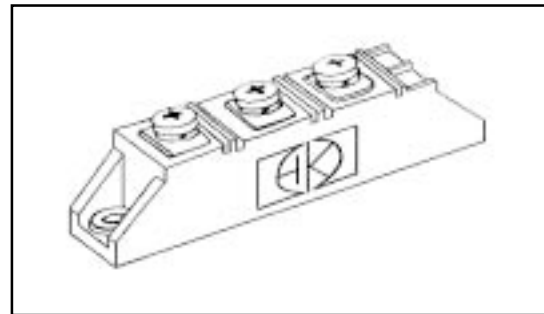
- International standard package
With DBC ceramic base plate
- Planar passivated chips
- High surge capability
- UL recognition pending



VRRM =1200V- 1800V
IFAVM =2x40A
IFRMS=2x65A

Benefits

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



Absolute Maximum Ratings

Symbol	Test Conditions	Max.	Units
VRRM		1200,1400,1600,1800	V
IFRMS	T _{VJM} =150 °C	65	A
IFAVM	T _c =85 °C;180° sine	40	A
	T _c =100 °C;180° sine	36	A
IFSM	T _{VJ} =45 °C; t=10ms (50 Hz),sine	750	A
	V _R =0 t=8.3ms (60 Hz),sine	850	A
	T _{VJ} =150 °C; t=10ms (50 Hz),sine	580	A
	V _R =0 t=8.3ms (60 Hz),sine	680	A
I ² t	T _{VJ} =45 °C; t=10ms (50 Hz),sine	2100	A ² s
	V _R =0 t=8.3ms (60 Hz),sine	2400	A ² s
	T _{VJ} =150 °C; t=10ms (50 Hz),sine	1700	A ² s
	V _R =0 t=8.3ms (60 Hz),sine	1900	A ² s
V _{ISOL}	RMS Isolation Voltage, Any Terminal To Case, t=1 min	2500	V
T _{VJ}		-40 to +150	°C
T _{VJM}		150	
T _{STG}		-40 to +125	

MDC40TA120/180P

Thermal / Mechanical Characteristics

	Parameter	Typ.	Max.	Units
R _{θJS}	Thermal Resistance, Junction-to- Sink DC	-	0.6	
R _{θJC}	Thermal Resistance, Junction-to- Case DC	-	0.5	°C/W
R _{θCS}	Thermal Resistance, Case-to- Sink- Module	0.1	-	
	Mouting Torque, Case-to-Heatsink	-	4.0	N.m
	Mouting Torque, Case-to-Terminal 1,2 & 3	-	3.0	
	Weight of Module	100	-	g

Electrical Characteristics (unless otherwise specified)

	Parameter	Min.	Typ.	Max.	Units	Conditions
I _R	Diode Leaking Current	-	-	1	mA	T _{VJ} =25 °C V _R =V _{RRM}
		-	-	10	mA	T _{VJ} =125 °C V _R =V _{RRM}
V _F	Diode Forward Voltage	-	-	1.38	V	I _F =80A; T _{VJ} =25 °C
V _{TO}	For power-loss calculations only	-	-	0.8	V	T _{VJ} =125 °C
r _T		-	-	5.9	mΩ	
Q _S				90	μC	T _{VJ} =125 °C; I _F =50A,
I _{RM}				11	A	-di/dt=0.6A/μs

Voltage Ratings

Voltage Code	V _{RRM} (V)	V _{RSM} (V)	I _{RRM} T _J =25 °C(mA)
120	1200	1300	1.0
140	1400	1500	1.0
160	1600	1700	1.0
180	1800	1900	1.0

Case Outline - a-a-pak

