

XI'AN IR-PERI



Company

PRELIMINARY

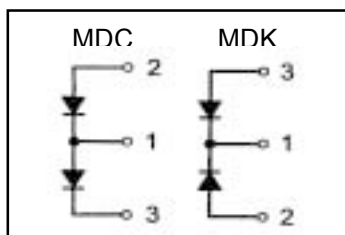
MDK200TS120/160

MDC200TS120/160

Diode Modules Int -A -PAK

Features

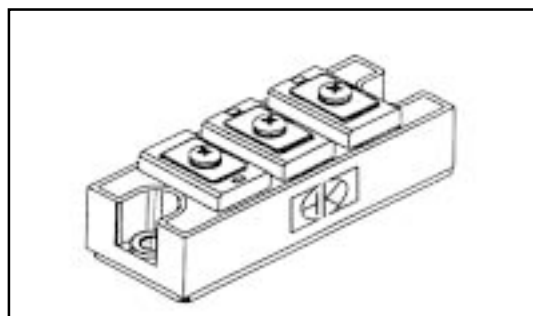
- International standard package
With DBC ceramic base plate
- Planar passivated chips
- High surge capability
- UL recognition pending



VRRM =1200V- 1600V
IFAVM =2x200A
IFRMS=2x320A

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	V
IFRMS	T _{VJM} =150 °C	280	A
IFAVM	T _c =85 °C;180° sine	200	A
	T _c =100 °C;180° sine	190	A
IFSM	T _{VJ} =45 °C; t=10ms (50 Hz),sine	4700	A
	V _R =0 t=8.3ms (60 Hz),sine	5000	A
	T _{VJ} =150 °C; t=10ms (50 Hz),sine	4100	A
	V _R =0 t=8.3ms (60 Hz),sine	4300	A
I ² t	T _{VJ} =45 °C; t=10ms (50 Hz),sine	110000	A ² s
	V _R =0 t=8.3ms (60 Hz),sine	104000	A ² s
	T _{VJ} =150 °C; t=10ms (50 Hz),sine	84000	A ² s
	V _R =0 t=8.3ms (60 Hz),sine	77000	A ² s
VISOL	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	

Thermal / Mechanical Characteristics

	Parameter	Typ.	Max.	Units
R θ JS	Thermal Resistance, Junction-to- Sink DC	-	0.28	
R θ JC	Thermal Resistance, Junction-to- Case DC	-	0.18	°C/W
R θ CS	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 _{R_{RM}}
		-	-	20	mA	T _{VJ} =125 °C V _R =V _{R_{RM}}
V _F	Diode Forward Voltage	-	-	1.3	V	I _F =300A; T _{VJ} =25 °C
V _{TO}	For power-loss calculations only	-	-	0.8	V	T _{VJ} =125 °C
r _T		-	-	1.5	mΩ	
Q _S				550	μC	T _{VJ} =125 °C; I _F =50A,
I _{RM}				235	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 - i-a-pak

