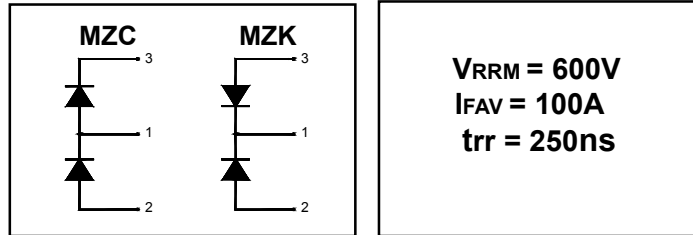


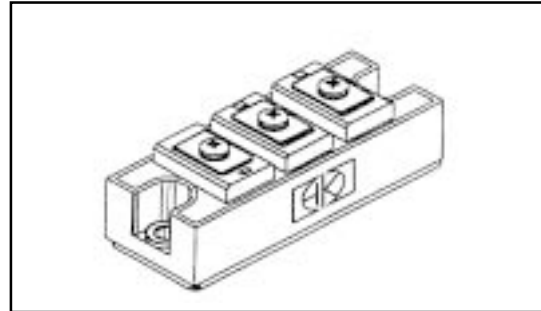
Features

- International standard package
With DBC ceramic base plate
- Planar passivated chips
- Short recovery time
- Low switching losses
- Ultra-soft recovery behaviour
- Industry standard package
- UL recognition pending



Benefits

- Antiparallel diode for high frequency switching devices
- Increased operating efficiency
- Direct mounting to heatsink
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners and welders
- Low voltage peaks for reduced protection circuits



Absolute Maximum Ratings

Symbol	Test Conditions	Max.	Units
V_{RSM} & V_{RRM}		600	V
I_{FRMS}	$T_C=75^\circ\text{C}$	150	A
I_{FAV}	$T_C=75^\circ\text{C}$; rectangular, $d=0.5$	100	A
I_{FRM}	$t_p < 10\mu\text{s}$; rep. rating, pulse width limited by T_{VJM}	TBD	A
I_{FSM}	$T_{VJ}=45^\circ\text{C}$; $t=10\text{ms}$ (50 Hz), sine	1200	A
	$t=8.3\text{ms}$ (60 Hz), sine	1300	A
	$T_{VJ}=150^\circ\text{C}$; $t=10\text{ms}$ (50 Hz), sine	1080	A
	$t=8.3\text{ms}$ (60 Hz), sine	1170	A
I^2t	$T_{VJ}=45^\circ\text{C}$; $t=10\text{ms}$ (50 Hz), sine	7200	A^2s
	$t=8.3\text{ms}$ (60 Hz), sine	7100	A^2s
	$T_{VJ}=150^\circ\text{C}$; $t=10\text{ms}$ (50 Hz), sine	5800	A^2s
	$t=8.3\text{ms}$ (60 Hz), sine	5700	A^2s
V_{ISOL}	RMS Isolation Voltage, Any Terminal To Case, $t=1$ min	2500	V
P_D	$T_C=25^\circ\text{C}$	300	W
T_J	Operating Junction Temperature Range	-40 to +150	$^\circ\text{C}$
T_{STG}	Storage Temperature Range	-40 to +125	

Thermal / Mechanical Characteristics

	Parameter	Typ.	Max.	Units
R _{θJS}	Thermal Resistance, Junction-to- Sink DC	-	0.50	
R _{θJC}	Thermal Resistance, Junction-to- Case DC	-	0.42	°C/W
R _{θCS}	Thermal Resistance, Case-to- Sink- Module	0.08	-	
	Mouting Torque, Case-to-Heatsink	-	4.0	N.m
	Mouting Torque, Case-to-Terminal 1,2 & 3	-	3.0	
	Weight of Module	200	-	g

Electrical Characteristics (unless otherwise specified)

	Parameter	Min.	Typ.	Max.	Units	Conditions
V _{RRM}	Reverse Breakdown Voltage	600	-	-	V	I _R =2mA
I _R	Diode Leaking Current	-	-	2	mA	T _{VJ} =25 °C V _R =V _{RRM}
		-	-	0.5	mA	T _{VJ} =25 °C V _R =0.8V _{RRM}
		-	-	34	mA	T _{VJ} =125 °C V _R =0.8V _{RRM}
V _F	Diode Forward Voltage	-	-	1.36	V	I _F =100A; T _{VJ} =125 °C
		-	-	1.55	V	T _{VJ} = 25 °C
		-	-	2.05	V	I _F =300A; T _{VJ} =125 °C
		-	-	2.09	V	T _{VJ} = 25 °C
V _{TO}	For power-loss calculations only	-	-	1.01	V	
r _T		-	-	2.85	mΩ	
trr@T _{VJ} =100 °C	Diode Reverse Recovery Time	-	250	300	ns	I _F =100A
I _{RM} @T _{VJ} = 25 °C	Diode Peak Reverse Current	-	-	14	A	V _R =300V
I _{RM} @T _{VJ} =100 °C	Diode Peak Reverse Current	-	-	21	A	-di/dt=200A/μs

Case Outline - int-a-pak

