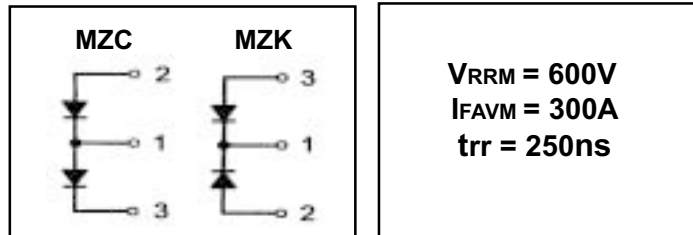


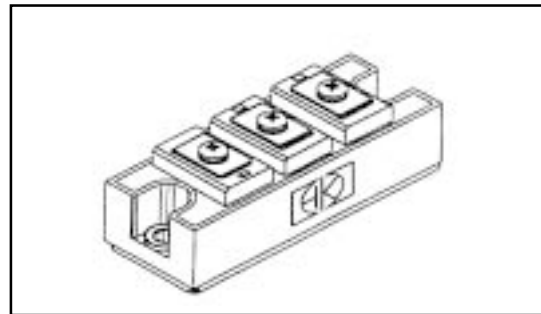
### Features

- 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
$I_{FRMS}$	$T_C=75^\circ\text{C}$	430	A
$I_{FAVM}$	$T_C=75^\circ\text{C}$ ; rectangular, $d=0.5$	300	A
$I_{FRM}$	$t_p < 10\mu\text{s}$ ; rep. rating, pulse width limited by $T_{VJM}$	1640	A
$I_{FSM}$	$T_{VJ}=45^\circ\text{C}$ ; $t=10\text{ms}$ (50 Hz), sine	2400	A
	$t=8.3\text{ms}$ (60 Hz), sine	2640	A
	$T_{VJ}=150^\circ\text{C}$ ; $t=10\text{ms}$ (50 Hz), sine	2160	A
	$t=8.3\text{ms}$ (60 Hz), sine	2380	A
$I^2t$	$T_{VJ}=45^\circ\text{C}$ ; $t=10\text{ms}$ (50 Hz), sine	28800	$\text{A}^2\text{s}$
	$t=8.3\text{ms}$ (60 Hz), sine	29300	$\text{A}^2\text{s}$
	$T_{VJ}=150^\circ\text{C}$ ; $t=10\text{ms}$ (50 Hz), sine	23300	$\text{A}^2\text{s}$
	$t=8.3\text{ms}$ (60 Hz), sine	23800	$\text{A}^2\text{s}$
$V_{ISOL}$	RMS Isolation Voltage, Any Terminal To Case, $t=1\text{ min}$	2500	V
$P_D$	$T_C=25^\circ\text{C}$	880	W
$T_J$	Operating Junction Temperature Range	-40 to +150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature Range	-40 to +125	

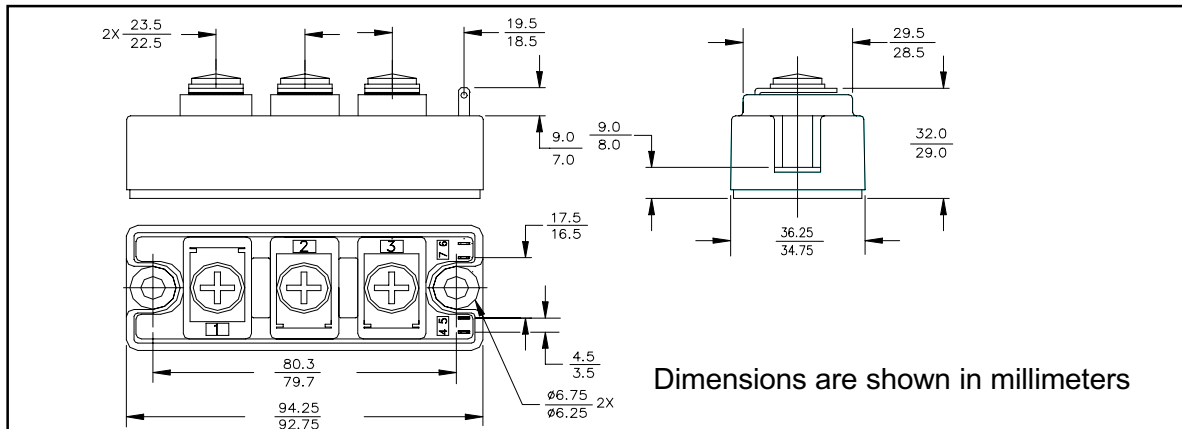
**Thermal / Mechanical Characteristics**

	Parameter	Typ.	Max.	Units
R <sub>θJS</sub>	Thermal Resistance, Junction-to- Sink DC	∞	0.228	
R <sub>θJC</sub>	Thermal Resistance, Junction-to- Case DC	∞	0.143	°C/W
R <sub>θCS</sub>	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 <sub>RRM</sub>	Reverse Breakdown Voltage	600	∞	∞	V	I <sub>R</sub> =12mA
I <sub>R</sub>	Diode Leaking Current	∞	∞	12	mA	T <sub>VJ</sub> =25°C V <sub>R</sub> =V <sub>RRM</sub>
		∞	∞	3	mA	T <sub>VJ</sub> =25°C V <sub>R</sub> =0.8V <sub>RRM</sub>
		∞	∞	80	mA	T <sub>VJ</sub> =125°C V <sub>R</sub> =0.8V <sub>RRM</sub>
V <sub>F</sub>	Diode Forward Voltage	∞	∞	1.05	V	I <sub>F</sub> =150A; T <sub>VJ</sub> =125°C
		∞	∞	1.27	V	T <sub>VJ</sub> = 25°C
		∞	∞	1.19	V	I <sub>F</sub> =260A; T <sub>VJ</sub> =125°C
		∞	∞	1.36	V	T <sub>VJ</sub> = 25°C
V <sub>TO</sub>	For power-loss calculations only	∞	∞	0.85	V	
r <sub>T</sub>		∞	∞	1.34	mΩ	
trr@T <sub>VJ</sub> =100°C	Diode Reverse Recovery Time	∞	250	300	ns	I <sub>F</sub> =300A
I <sub>RM</sub> @T <sub>VJ</sub> = 25°C	Diode Peak Reverse Current	∞	∞	44	A	V <sub>R</sub> =300V
I <sub>RM</sub> @T <sub>VJ</sub> =100°C	Diode Peak Reverse Current	∞	∞	66	A	-di/dt=400A/μs

**Case Outline - Int-a-pak**



Dimensions are shown in millimeters