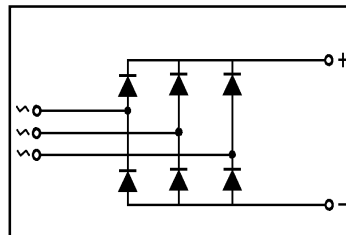


Diode Modules TG-PAK

Features

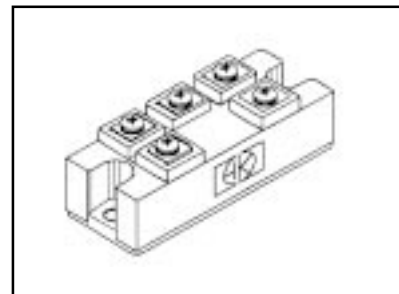
- International standard package
- With DBC ceramic base plate
- Planar passivated chips
- High surge capability
- Complies With RoHS Directive;
- Lead Free;



$I_{DAVM} = 45A$
 $V_{RRM} = 800-1600V$

Benefits

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



Absolute Maximum Ratings

Symbol	Test Conditions	Max.	Units
V_{RRM}		800, 1200, 1400, 1600	V
I_D	$T_C = 100^\circ C$, module	45	A
I_{FSM}	$T_{VJ} = 45^\circ C$; $t = 10ms$ (50 Hz), sine	660	A
	$V_R = 0$ $t = 8.3ms$ (60 Hz), sine	636	A
	$T_{VJ} = 150^\circ C$; $t = 10ms$ (50 Hz), sine	800	A
	$V_R = 0$ $t = 8.3ms$ (60 Hz), sine	840	A
I^2t	$T_{VJ} = 45^\circ C$; $t = 10ms$ (50 Hz), sine	2750	A^2s
	$V_R = 0$ $t = 8.3ms$ (60 Hz), sine	3150	A^2s
	$T_{VJ} = 150^\circ C$; $t = 10ms$ (50 Hz), sine	2520	A^2s
	$V_R = 0$ $t = 8.3ms$ (60 Hz), sine	2750	A^2s
V_{ISOL}	RMS Isolation Voltage, Any Terminal To Case, $t = 1$ min	2500	V
T_{VJ}		-40 to +150	$^\circ C$
T_{VJM}		150	
T_{STG}		-40 to +125	

Thermal / Mechanical Characteristics

	Parameter	Typ.	Max.	Units
R _{θJS}	Thermal Resistance, Junction-to- Sink DC	-	0.5	
R _{θJC}	Thermal Resistance, Junction-to- Case DC	-	0.4	°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	180	-	g

Electrical Characteristics (unless otherwise specified)

	Parameter	Min.	Typ.	Max.	Units	Conditions
I _R	Diode Leaking Current	-	-	0.5	mA	T _{VJ} =25 °C V _R =V _{RRM}
		-	-	5	mA	T _{VJ} =125 °C V _R =V _{RRM}
V _F	Diode Forward Voltage	-	-	1.28	V	I _F =80A; T _{VJ} =25 °C
V _{TO}	For power-loss calculations only	-	-	0.8	V	T _{VJ} =125 °C
r _T		-	-	6.0	mΩ	

Voltage Ratings

Voltage Code	V _{RRM} (V)	V _{RSM} (V)	I _{RRM} (mA)	T _J =25 °C
080	800	900	1.0	
120	1200	1300	1.0	
140	1400	1500	1.0	
160	1600	1700	1.0	

Case Outline - MDS-pak

