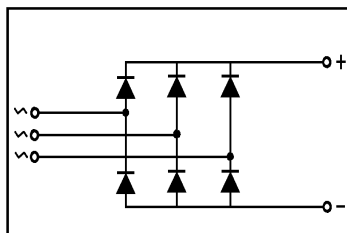


Diode Modules TG-PAK

Features

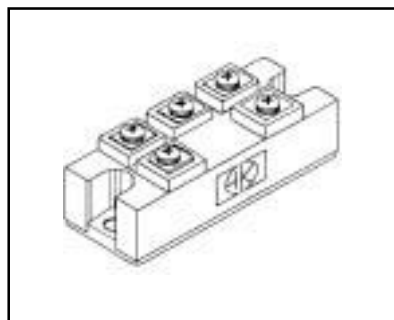
- International standard package
- With DBC ceramic base plate
- Planar passivated chips
- High surge capability
- Complies With RoHS Directive;
- Lead Free;



IDA_{VM} = 150A
VRRM=1200V/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
VRRM		1200,1600	V
IDA _{VM}	T _C =100 °C,	150	A
I _{FSM}	T _{VJ} =45 °C; t=10ms (50 Hz),sine	2000	A
	V _R =0 t=8.3ms (60 Hz),sine	2200	A
	T _{VJ} =150 °C; t=10ms (50 Hz),sine	1400	A
	V _R =0 t=8.3ms (60 Hz),sine	1500	A
I ² t	T _{VJ} =45 °C; t=10ms (50 Hz),sine	10000	A ² s
	V _R =0 t=8.3ms (60 Hz),sine	11000	²s
	T _{VJ} =150 °C; t=10ms (50 Hz),sine	5000	A ² s
	V _R =0 t=8.3ms (60 Hz),sine	4600	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	

Thermal / Mechanical Characteristics

	Parameter	Typ.	Max.	Units
$R_{\theta JS}$	Thermal Resistance, Junction-to- Sink DC	-	0.13	
$R_{\theta JC}$	Thermal Resistance, Junction-to- Case DC	-	0.08	°C/W
$R_{\theta CS}$	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	180	-	g

Electrical Characteristics (unless otherwise specified)

	Parameter	Min.	Typ.	Max.	Units	Conditions
I_R	Diode Leaking Current	-	-	0.5	mA	$T_{VJ}=25\text{ }^{\circ}\text{C}$ $V_R=V_{RRM}$
		-	-	10	mA	$T_{VJ}=125\text{ }^{\circ}\text{C}$ $V_R=V_{RRM}$
V_F	Diode Forward Voltage	-	-	1.45	V	$I_F=150\text{A}$; $T_{VJ}=25\text{ }^{\circ}\text{C}$
V_{TO}	For power-loss calculations only	-	-	0.8	V	$T_{VJ}=125\text{ }^{\circ}\text{C}$
r_T		-	-	5.0	mΩ	

Voltage Ratings

Voltage Code	V_{RRM} (V)	$V_{RSM}(V)$	I_{RRM} (mA)	$T_J=25\text{ }^{\circ}\text{C}$
120	1200	1300	1.0	
160	1600	1700	1.0	

Case Outline - MDS-pak

